

December 8, 2011

Mr. Allen Anderson
Water Enforcement Branch
Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, Arkansas 72118-5317

Re: Russellville City Corporation – CAO
Final Report SSES Phase II (Basins RV07, RV14 & RV23)
NPDES Permit No. AR0021768
CAO LIS No. 09-146
AFIN 58-00105

Dear Mr. Anderson,

I am pleased to submit two copies of the enclosed SSES Phase II Final Report for Basins RV07, RV14 & RV23 on behalf of Russellville City Corporation. The Phase II submittal shall fulfill the requirements of the Consent Administrative Order and the Corrective Action Plan dated May 28, 2010. The enclosed document is the final report prepared by RJN. We have included an electronic copy of the entire document in CD format. Please review the document and respond with any concerns or comments.

I am also submitting a copy of the current Milestone Schedule for SSES Phase II. This schedule is included in the Executive Summary of the Phase I report submitted on February 25, 2011. RJN is currently working in Basins 1, 8, and 11 as stated in the Milestone Schedule. Additionally, City Corporation has decided to add Basin 2 to the current study. The Milestone Schedule will be updated to reflect this change and submitted at a later date.

If you have any questions, you may contact me at email cwbengineers@yahoo.com or phone (501) 413-0861.

Sincerely,

Clint W. Bell, P.E.
CWB Engineers, Inc.

Enclosure

PHASE II – MILESTONE SCHEDULE

Fiscal Year	Begin Sanitary Sewer Evaluation Study (Basin)	Begin Design (Basin)	Begin Construction (Basin)
2010	7, 14, 23		
2011	1, 8, 11	7, 14, 23	
2012	2, 5, 21	1, 8, 11	7, 14, 23
2013	3, 18, 20	2, 5, 21	1, 8, 11
2014	9, 10, 15	3, 18, 20	2, 5, 21
2015	16, 17, 26	9, 10, 15	3, 18, 20
2016	13, 24, 25	16, 17, 26	9, 10, 15
2017	6, 19, 22	13, 24, 25	16, 17, 26
2018	12, 27, 28	6, 19, 22	13, 24, 25
2019		12, 27, 28	6, 19, 22
2020			12, 27, 28

**WASTEWATER COLLECTION SYSTEM – SSES PHASE 2
(BASINS RV07, RV14 & RV23)**

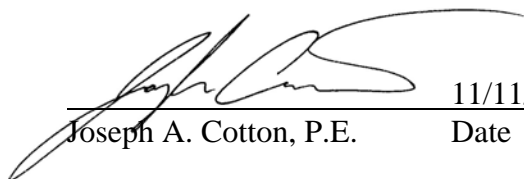
FINAL REPORT

**CITY OF
RUSSELLVILLE, ARKANSAS**

NOVEMBER 2011



I hereby certify that this report was prepared under my direct supervision and that I am a duly registered Professional Engineer under the laws of the State of Arkansas.



Joseph A. Cotton, P.E. 11/11/11 Registration No.: _____ 12369
Date

November 14, 2011

Mr. Craig Noble, P.E.
General Manager
Russellville City Corporation
205 West 3rd Place
Russellville, AR 72811-3186

Subject: City of Russellville, Arkansas
Phase 2 Inflow and Infiltration (I&I) Reduction Services Final Report

Dear Mr. Noble:

According to the March 8, 2010 Engineering Agreement, RJN is pleased to present this final report for the above referenced project. The field investigations include defect findings from manhole inspection, smoke testing, dyed water flooding and television inspection. The following conclusions were based on the results:

- The recommended plan includes rehabilitation of 346 manholes, 321 service line sources, 16,268 linear feet of sewer line rehabilitation, and 35 sewer line point repairs.
- Implementation of the recommended plan would remove approximately 3.269 mgd of 2-year/60-minute inflow and 0.188 mgd of infiltration.
- The estimated Capital Cost to implement the recommended plan is \$4.696 million.

If you have any questions regarding this submittal or you require additional information, please do not hesitate to call us.

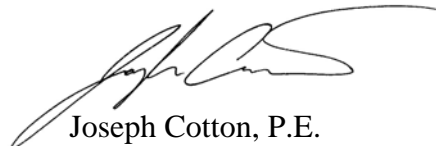
Very truly yours,

RJN GROUP, INC.



Daniel Jackson, P.E.
Project Manager

DJ/JC/18-2455-00
Enclosure



Joseph Cotton, P.E.
Assistant Project Manager

EXECUTIVE SUMMARY

RJN Group, Inc. was retained by Russellville City Corporation to provide Phase 2 Inflow and Infiltration (I&I) Reduction Services within the wastewater collection system in the prioritized Basins identified in the Phase 1 Report. The initial flow monitoring results found that inflow rates per linear feet of sewer pipe ranked highest in three (3) basins. It was recommended that a comprehensive evaluation study of the sewer system in each of the three (3) basins (RV07, RV14, and RV23) be implemented. The purpose of this study was to identify I/I sources and develop a recommended plan for the elimination of those sources. The study consisted of field investigations and analysis to develop a recommended plan to reduce I/I and improve the integrity of the collection system. Both Phase 1 and Phase 2 inspections and recommendations are included in this report.

The study area contains approximately 134,500 linear feet of wastewater mains ranging in size from 6 inches to 36 inches in diameter and approximately 500 structures. Field activities included:

- Mapping
- Manhole/Visual Pipe Inspections
- Smoke Testing
- Dyed Water Flooding
- TV Inspection (CCTV)
- Data Analysis/Recommendations

Manhole Inspections (Tables 2-B and 2-C)

Manhole above/below ground and visual pipe inspections included the documentation of location and an evaluation of the physical conditions of each structure. A total of 498 structures were visited from the study area and completed inspections were performed on 478 structures.

Smoke Testing/Rainfall Simulation (Table 2-D)

Smoke testing was performed to identify sources of inflow such as defective cleanouts, service laterals, main lines, area drains and downspouts. A total of 133,531 linear feet of sewer was inspected by smoke testing in the study area.

Dyed Water Flooding (Table 2-E)

Dyed water flooding was performed on potential main lines to further pinpoint defect locations identified during smoke testing. A total of 36 dyed water tests were performed in the study area.

Television Inspection and Recommended Sewer Line Repairs (Table 2-F, 4-A, 4-B)

Closed circuit television inspection was attempted on 29,349 linear feet of the sewer system in the study area. TV inspection was used to identify the exact location of defects identified from smoke and dyed water testing and to document defects.

Recommended repairs are summarized in Tables 4-A (point repairs) and Table 4-B (Complete line replacement). There are 22 line segments with recommended point repairs and 16,268 linear feet of sewer pipe recommended for replacement.

Recommended Manhole Rehabilitation (Table 4-D)

Manhole Inspection data was analyzed and rehabilitation was recommended for each manhole requiring repairs. A total of 346 manholes are recommended for rehabilitation.

Recommended Service Line Inflow Removal (Table 4-F)

Smoke testing data was analyzed and repairs for service line sources in the public and private sector are recommended. A total of 321 service line sources are recommended for repair.

CONCLUSIONS FROM DATA ANALYSIS

The following conclusion was based on field investigations and data analysis for the selected Basins RV07, RV14, and RV23:

Additional investigations are recommended on select sewer lines which were unable to be completely televised. Inflow sources were identified on these lines during smoke and dye testing activities. Additional investigation of sewer lines requires either root cutting or point repairs to allow completion of TV inspection before final recommendations. Sewer lines recommended for additional investigations are identified in Chapter 4.

RECOMMENDED REPLACEMENT/REHABILITATION COST ESTIMATES

Repair Category	Quantity	Capital Cost (\$Million)
Sewer Line Rehabilitation		
Main Sewer Replacement (Tables 4-B)	16,268 lf	3.231
Public Sector Point Repairs (Table 4-A)	35 ea	<u>0.183</u>
Subtotal		3.414
Manhole and Smoke Defect Repairs		
Manhole Repair (Table 5-D)	346 ea	0.526
Public and Private Sector Cleanout and Service Line Repairs (Table 5-B)	321 ea	<u>0.756</u>
Subtotal		<u>1.282</u>
Total		4.696

SUMMARY OF REDUCTION IN PEAK INFLOW AND INFILTRATION

- The projected 2-year/60-minute inflow rate determined in the Phase 1 Report is approximately 5.782 mgd. The overall reduction which includes the recommended replacement and rehabilitation program included in this study is estimated to reduce the peak inflow by approximately 56 percent by a 2-year/60-minute inflow reduction rate of 3.269 mgd.
- The projected peak monitored infiltration determined in the Phase 1 Report for the study area was estimated to be 0.748 mgd. The overall reduction which includes the recommended replacement and rehabilitation program included in this study is estimated to reduce the peak infiltration rate by approximately 25 percent by a peak infiltration reduction rate of 0.188 mgd.
- We recommend that Russellville City Corporation aggressively pursue the rehabilitation and replacement of the public and private sector defects shown in the table above.

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INTRODUCTION

In February 2010, RJN Group, Inc. was retained by Russellville City Corporation of Russellville, Arkansas to perform a city-wide evaluation of the sanitary sewer collection system by means of flow monitoring, lift station evaluation, intensive field investigations and hydraulic modeling. This evaluation is to be conducted over several years in multiple phases. Phase 1 consisted of flow monitoring, lift station evaluations, hydraulic modeling and initial field investigations required to assist in the hydraulic modeling. Phase 1 also prioritized the sub-basins for additional investigation to identify Inflow/Infiltration (I/I) sources and develop sewer improvement recommendations.

Based on the results of the Phase 1 study, the Russellville City Corporation retained RJN Group, Inc. to provide a Phase 2 Inflow and Infiltration (I&I) Reduction Study within Basins RV07, RV14, and RV23 which included manhole inspection, smoke testing, dyed water flooding, and television inspection. Both Phase 1 and Phase 2 inspections and recommendations are discussed in this report.

OVERVIEW

Infiltration and Inflow may enter the sanitary sewer system during storm events. Infiltration occurs when groundwater enters sewer lines and manholes. Inflow occurs when storm water runoff enters the sanitary sewer system through both public sector and private sector sources. These sources include cross connections with storm sewers, main line defects, vented manhole covers, defective frame seals, defective cleanouts, and direct connections to the sanitary sewer from downspouts and/or area drains.

The data collected from the field investigations is thoroughly analyzed by engineers to generate a plan that can effectively reduce I/I, therefore, resulting in considerable savings in the transport and treatment costs to the City Corporation. Field investigations performed during this project include the following:

1. Manhole and Visual Pipe Inspections
2. Smoke Testing
3. Dyed Water Flooding
4. Television Inspection (CCTV) / Pipe Cleaning
5. Mapping
6. Data Analysis
7. Recommendations/Report

DESCRIPTION OF THE STUDY AREA

The Basins included in this study are comprised of residential neighborhoods, commercial, and industrial areas. The study area includes 3 drainage basins and contains an estimated 498 structures and approximately 134,500 linear feet of sewer pipe which are owned and maintained by the Russellville City Corporation. The drainage basins included in the study area are shown on Exhibit 1.

PROJECT APPROACH

The Basins were studied to identify I/I sources and recommend a plan to improve the efficiency of the wastewater collection system. The project team employed the following project approach for the Phase 2 Study:

Field Investigations:

- 1. Manhole and Visual Pipe Inspections
- 2. Smoke Testing
- 3. Dye Testing
- 4. Television Inspection
- 5. Data Analysis

Data Analysis and Recommendations:

The recommended plan was arrived at after carefully reviewing the results achieved from the field investigations and consists of the following:

- 1. Recommended I/I removal based on manhole inspections and smoke testing
- 2. Line replacements and point repairs based on CCTV
- 3. Maintenance issues based on CCTV and dyed water testing
- 4. Cost to implement the plan

DEFINITIONS AND ABBREVIATIONS

This section contains definitions and abbreviations commonly used throughout this report.

- (1) Infiltration (as defined by USEPA) - the water entering a sewer system and service connections from the ground through such means as, but not limited to, defective pipes, pipe joints, service connections, service laterals, or manhole walls.
- (2) Inflow (as defined by USEPA) - the water discharged into a sewer system, including service connections, from such sources as roof leaders; cellar, yard, and area drains; foundation drains; cooling water discharges; drains from springs and swampy areas; manhole covers; cross connections from storm sewers, combined sewers, or catch basins; storm waters; surface runoff; or drainage.
- (3) Excessive Infiltration and Inflow (I/I) - the extraneous clean water that enters the sanitary sewer system which can be eliminated on a cost-effective basis.

- (4) Base Flow - wastewater flow exclusive of infiltration or inflow. Generally determined from water records during months when most of the water consumption is returned to the wastewater collection system.
- (5) Permanent Infiltration - extraneous flow that enters the sewer system through the ground during periods of dry weather/low groundwater. Generally determined by subtracting base flow during winter months from the average daily dry-weather monitored flow.
- (6) Peak Infiltration - the maximum extraneous flow that enters the wastewater collection system during high groundwater conditions after the inflow effects of a rain event have ended. Generally determined by subtracting dry-weather/low-groundwater flow (average daily dry-weather monitored flow) from flow recorded during periods of high groundwater.
- (7) Average Daily Dry-Weather Flow - dry-weather/low-groundwater flow exclusive of dry-weather/high-groundwater (peak infiltration) and wet-weather (inflow) flow. Includes base flow and permanent infiltration only.
- (8) Average Daily Dry-Weather Flow Peaking Factor - the ratio between the peak hourly flow rate and the average daily flow.
- (9) 1-Year/60-Minute Storm - a storm event that produces 1.45 inches of rain per hour and is expected to occur once in any given year.
- (10) 2-Year/60-Minute Storm - a storm event that produces 1.78 inches of rain per hour and has a 50 percent probability of occurring in a given year.
- (11) 2-Year/24-Hour Storm - a storm event that produces 4.14 inches of rain in 24 hours and has a 50 percent probability of occurring in a given year.
- (12) Design Storm Event - a storm event selected for purposes of analyzing its effect on the wastewater collection system.
- (13) gpd - gallons per day.
- (14) mgd - million gallons per day.
- (15) idm - inch-diameter-miles. The product of sewer pipe diameter in inches and length of sewer in feet divided by 5,280 feet.
- (16) gpd/idm - gallons per day per inch-diameter-mile.
- (17) Surcharge Condition – When the sewer flow depth equals or exceeds the diameter of the discharging sewer lines. (WEF Manual of Practice FD-6)
- (18) Infiltration and Inflow (I/I) – A combination of infiltration and inflow wastewater volume in sanitary sewer.

- (19) Public Sector Cleanouts - Cleanouts that are approximately located within city easements or right-of-way.
- (20) Private Sector Cleanouts – Cleanouts that are approximately located on private property, such as homeowner’s yard.

SYSTEM SURVEY

RJN conducted a Wastewater Collection System Study to identify sewer manhole defects and maintenance related issues, recommend repairs to reduce I/I, and increase the overall efficiency of the collection system

MAPPING AND STRUCTURE NUMBERING

Russellville City Corporation provided maps of the wastewater collection system in the study area at the initiation of the study. Manholes or other information found during the field investigations that were not shown on existing maps were assigned a number ending in the letter ‘A’ and were added to the collection system map. The maps were updated to include routing changes, new line segments, and manholes found during field investigations. Approximately 21 manholes were found during investigations within Basins RV07, RV14, and RV23.

FIELD INSPECTIONS

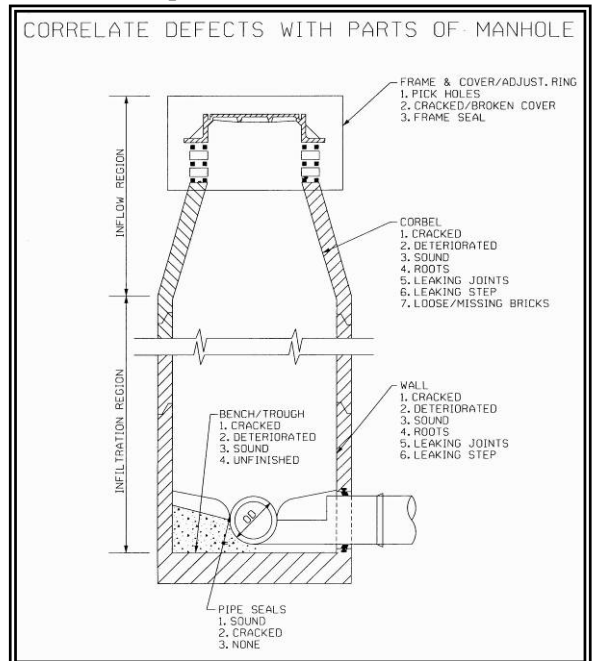
Field inspection activities included: manhole reconnaissance survey, manhole and visual pipe inspections, and rainfall simulation. Manholes for 10-inch diameter and larger sewers as well as selected 8-inch diameter sewers inspected during Phase 1 are included in this report for the studied Basins.

MANHOLE AND VISUAL PIPE INSPECTIONS

Manhole inspection and visual pipe inspection is that part of the survey where the physical condition of the sewer system is visually evaluated. These inspections verified manhole location, condition, pipe size, pipe condition, and line segment continuity. A sectional elevation of a typical manhole is shown on the right.

The manhole inspection procedure included recording the following observations:

1. Location and identification number
2. Potential for ponding on manhole cover
3. Cover type, fit, description, segment length, distance above or below grade, and evidence of inflow
4. Frame adjustment, seal, and evidence of inflow
5. Corbel construction, condition, evidence of inflow
6. Wall construction, condition, evidence of infiltration



7. Bench/trough construction, condition, deposition, evidence of infiltration
8. Pipe seal condition, evidence of infiltration
9. Step conditions
10. Manhole inside diameter
11. Surcharging or evidence of surcharging
12. Indication of groundwater level

FINDINGS: MANHOLE INSPECTIONS

Inspections were attempted on 498 of the anticipated 485 manholes (103%) in the study basins. Four hundred and thirty eight (438) manholes were physically descended and visually inspected and 40 manholes were inspected above ground due to surcharging, safety, and access limitations. Access structures not inspected included: buried, not found, and inaccessible structures. Manholes that were not inspected are indicated on the manhole inspection report included in the Appendix A and are noted in Table 2-A.

Table 2-A					
ACCESS STRUCTURE INSPECTION SUMMARY					
PHASE 1 AND PHASE 2					
Basin	Total	Inspected	Not Found	Buried	Inaccessible
RV07	221	217	2	0	2
RV14	188	178	7	2	1
RV23	89	83	1	2	3
Total	498	478	10	4	6



*Deteriorated Manhole
(RV07)1001*



*Broken Corbel
(RV07)1829*

Manhole construction includes brick, precast, poured, fiberglass, and coated manholes. The manholes range in diameter from 18-inches to 72-inches with the majority 48-inches in diameter. Manhole inspection resulted in identification of approximately 0.464 mgd of 1-year inflow and 0.055 mgd of infiltration. Major sources identified included pick holes, cracked walls, defective frame seals, corbel leaks, and cracked bench/troughs. Overall, the

most significant source of inflow from manholes was attributed to manholes with pick hole covers (229 ea) which are contributing approximately 0.172 mgd of inflow.

Another major contributor of inflow is manholes with defective frame seals. Field investigations identified 148 structures with defective frame seals.

Inspections indicated defective pipe seals to be prime sources of infiltration. A total of 24 manholes with defective pipe seals contributing approximately 0.024 mgd of infiltration have been found. The picture to the right is a manhole with a cracked pipe seal.



*Cracked Pipe Seal with Roots
(RV14)2846*

A manhole inspection summary is given in Table 2-A, while a summary of manhole defects is given in Table 2-B. A detailed summary of the manhole inspection is in the Appendix A. A total of 92 manholes located throughout the study area indicated evidence of surcharging. Maps depicting the manhole inspection status for the study area are shown on Exhibits 2 - 4.

Table 2-B

**SUMMARY OF MANHOLE DEFECTS
PHASE 1 AND PHASE 2**

Type of Defect	Number of Defects
<u>Inflow</u>	
Covers with Pick Holes	229
Covers Missing Bolts	2
Defective Frame Seal	148
Defective Corbel	58
Rim Leaks	11
Broken Frame	13
Broken Cover	<u>13</u>
Subtotal	474
<u>Infiltration</u>	
Defective Pipe Seals	24
Cracked Bench/Trough	27
Defective Manhole Wall	<u>63</u>
Subtotal	<u>114</u>
Total	588

VISUAL PIPE INSPECTIONS

Visual pipe inspection was also performed as part of the manhole inspection program with the following observations recorded:

1. Manhole identification numbers for connecting sewer lines
2. Flow direction in pipes
3. Pipe diameter and construction material
4. Amount of root growth percentage based
5. Amount and type of deposition
6. Structural condition and line/grade of pipe
7. Visible infiltration in pipe and/or from pipe seals

Visual pipe inspection verifies pipe diameter, continuity, and aids in identifying pipe defects near the collection system access structure.

FINDINGS: VISUAL PIPE INSPECTIONS

Sewer lines in the study area are mainly constructed of polyvinyl chloride (PVC), cast iron, concrete and vitrified clay. Table 2-C shows all defects found during visual pipe inspection. Examples of some of the defects are shown on the following page. A computer output report detailing the visual pipe inspection data is in Appendix B.

Table 2-C

SUMMARY OF DEFECTS FOUND DURING VISUAL PIPE INSPECTION PHASE 1 AND PHASE 2

Line Segment Defect	Quantity
Root Growth	60
Longitudinal Cracks	10
Circular Cracks	52
Collapsed Pipe	6
Offset Pipe	31
Broken Pipe	<u>39</u>
Total	198



*Offset Joint
(RV07)6141*



*Roots at Joint
(RV07)6106*

RAINFALL SIMULATION

A major field task in sewer system evaluation studies is locating infiltration and inflow sources by rainfall simulation. Types of infiltration and inflow sources identified by rainfall simulation may include the following:

1. Roof downspouts, yard, and area drains
2. Defective building sewers, faulty connections, and defective cleanouts
3. Cross connections between sanitary sewers and storm sewers (indirect or direct)
4. Storm sewer sections, stream sections, ditch sections, and ponding areas which may cause infiltration and inflow
5. Structurally damaged sewers and manholes

Rainfall simulation can also be utilized with flow measurements to quantify infiltration and inflow from identified sources. Rainfall simulation techniques include smoke testing and dyed water flooding.

SMOKE TESTING

Smoke testing is a quick method for detecting infiltration and inflow sources in a sanitary sewer system. This method is very effective in detecting sources such as roof downspouts, yard and area drains, defective building sewers, faulty connections, defective cleanouts, and storm sewer cross connections. It can also be utilized to detect infiltration sources in the sewer main. During testing, observations are recorded by line segment as follows:



Inflow source identified during smoke testing

1. Location of line segment
2. Location of observed smoke leaks recorded at the:
 - a. Curb
 - b. Sidewalk
 - c. Cleanout
 - d. Building laterals, front, side or rear yard
 - e. Driveway or area drain
 - f. Downspouts
 - g. Building interior (resident must inform inspector)
3. Location of smoke observed from stormwater conveyance systems
4. Location of smoke along a main sewer line

SMOKE INSPECTION FINDINGS:

Smoke testing was performed in each of the basins selected for additional SSES investigation. A total of 488 potential sources of I/I were identified from the 133,531 linear feet of sewer line that was smoke tested in the selected basins. A total of 318 I/I sources identified are from the private sector and 170 in the public sector. These sources are represented in the following pie chart and a summary of all sources is given in Table 2-D.

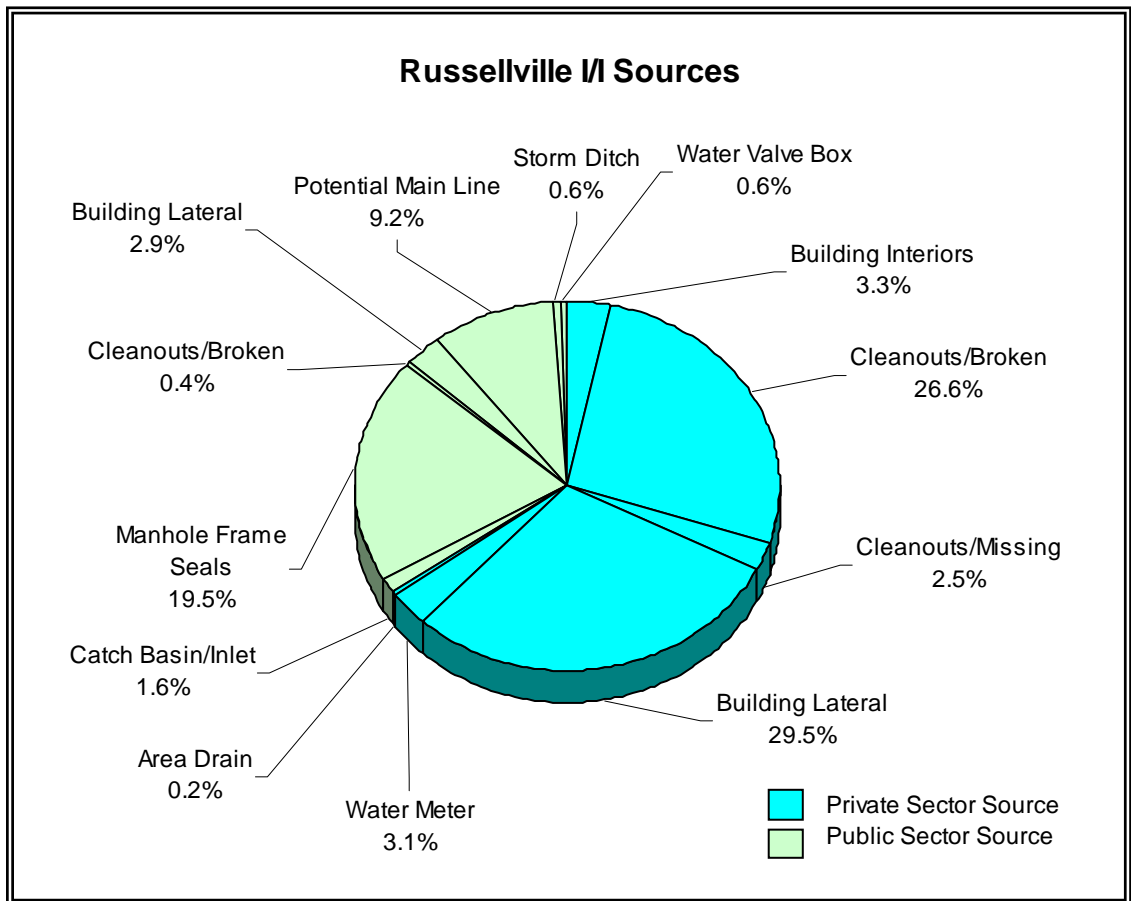


Table 2-D

SMOKE TEST DATA

Type of Source	Quantity
<u>Public Sector</u>	
Possible Main Line	45
Building Lateral	14
Cleanout/Broken	2
Manhole Frame Seal Leaks	95
Storm Ditch	3
Catch Basin/Inlet	8
Water Valve Box	<u>3</u>
Subtotal	170
<u>Private Sector</u>	
Building Lateral	144
Cleanouts/Broken	130
Cleanouts/Missing Cap	12
Building Interior	16
Water Meter	15
Area Drain	<u>1</u>
Subtotal	<u>318</u>
Total	488

A computer output report listing the findings of the smoke testing program is given in Appendix C.

PUBLIC SECTOR DYED WATER TESTING

Public sector dyed water flooding was performed on potential main line defects identified during smoke testing. This testing was used to more accurately identify and quantify public sector inflow sources. A total of 36 dyed water flooding tests were completed on 29 line segments. Line segment (RV14)EOL – (RV14)1532 was initially a possible main line that was later identified as a private building lateral and therefore the dye test was not performed. Nine (9) main line defects located in the street were unable to be dye tested due to heavy traffic. Six (6) main line defects were unable to be dye tested due to inadequate water sources within the vicinity. One (1) main line defect was unable to be dye tested due to location of defect did not allow for adequate flooding. Five (5) main line defects were not dye tested due to review of CCTV determined full line replacement and inflow sources would be repaired.

Line segment (RV23)1509 – (RV23)1504 was identified as having a main line defect that was not dye tested but is included in the Chapter 4 additional investigations for maintenance before conducting concurrent TV with dye testing. Line segment (RV23)1482 – (RV23)1018 was identified as a storm inlet defect but dye testing was unable to be completed due to lack of a nearby water source to sufficiently flood the storm sewer. Line segment (RV14)1081 – (RV14)1069 was identified as a storm inlet and dye testing was unable to be completed due to lack of a downstream access point to place a sewer plug. Line segments (RV14)1074 – (RV14)1073 and (RV14)1075 – (RV14)1074 were both identified as catch basin defects unable to be dye tested due to storm sewer configurations that would require a large amount of water to adequately dye the catch basin. A summary of the dyed water testing is included in Table 2-E. The pictures below show two identified sources during dye testing. Appendix D shows a computer output of the dye test findings.



*Positive Dye Test
(RV14)1046*



*Positive Dye Test
(RV23)1482*

Table 2-E

PUBLIC SECTOR DYED WATER FLOODING

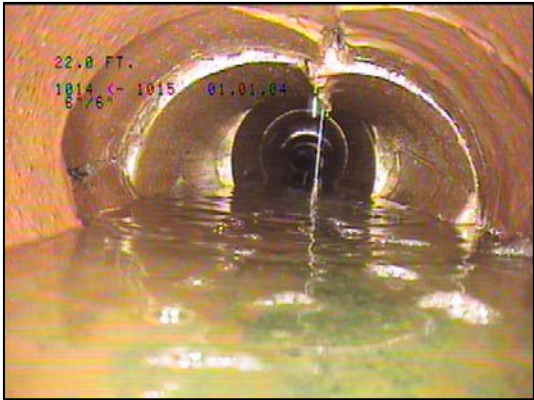
Line Segment	Defect Type	Result
(07)6020 - (07)6019	Main Line Defect	Positive
(07)6356 - (07)6355	Main Line Defect	Positive
(14)1013 - (14)1009	Main Line Defect	Positive
(14)1015 - (14)1014	Storm Drain	Positive ^{1/}
(14)1032 - (14)1030	Main Line Defect	Positive
(14)1044 - (14)1036	Main Line Defect	Positive
(14)1047 - (14)1046	Main Line Defect	Positive
(14)1051 - (14)1005	Main Line Defect	Positive
(14)1052 - (14)1024	Main Line Defect	Positive
(14)1058 - (14)1032	Storm Drain	Positive
(14)1060 - (14)1059	Main Line Defect	Positive
(14)1061 - (14)1060	Storm Drain	Positive
(14)1080 - (14)1083	Main Line Defect	Positive
(14)1146 - (14)1080	Main Line Defect	Positive
(14)1153 - (14)1148	Main Line Defect	Positive
(14)1213A - (14)1162	Main Line Defect	Positive
(14)1308A - (14)1308	Main Line Defect	Positive
(14)1516 - (14)1220	Main Line Defect	Negative ^{1/}
(14)1532 - (14)1531	Main Line Defect	Positive
(14)2833 - (14)1228	Main Line Defect	Positive
(14)2846 - (14)1098	Catch Basin	Positive
(14)EOL - (14)1300	Main Line Defect	Positive
(14)EOL - (14)1155	Catch Basin	Positive
(23)1020 - (23)1482	Catch Basin	Positive
(23)1512 - (23)1509	Main Line Defect	Positive ^{1/}
(23)1515 - (23)1512	Main Line Defect	Positive ^{1/}
(23)1557 - (23)1556	Inlet	Positive
(23)2058 - (23)1482	Main Line Defect	Positive
(23)2859A - (23)1489	Main Line Defect	Positive

^{1/} Multiple tests performed on segment.

TELEVISION INSPECTION

RJN Group, Inc. attempted to televise a total of 29,349 linear feet of sewer lines based on identified problems from smoke testing, dyed water flooding, visual pipe inspection, and lines recommended for inspection by City Corporation. As a result of TV work by RJN, approximately 5,792 linear feet of televised pipe was unable to be completed due to obstructions such as offset joints, broken pipe, and root masses.

A summary of sewer segments televised is given in Table 2-F and a log of the findings during each inspection is included in Appendix E. Photographs of examples of defects observed during television inspection are shown below.



Broken Pipe
(RV14)1015-1014



Separated Joint with Infiltration
(RV23)1512-1509

Table 2-F

SUMMARY OF LINE SEGMENTS TELEVISED

Line Segment		Pipe Diameter (in)	Segment Length (lf)	Televised Length (lf)	Justification
(RV07)1448	- (RV07)1818	18	271	270	Sewer Crosses Flood Plain
(RV07)1449	- (RV07)1448	18	277	268	Sewer Crosses Flood Plain
(RV07)1726	- (RV07)1738	18	101	99	Sewer Crosses Creek
(RV07)1738	- (RV07)1830	18	507	507	Sewer Crosses Flood Plain
(RV07)1829	- (RV07)1738	18	91	32	Sewer Crosses Flood Plain
(RV07)2201	- (RV07)2202	24	307	304	Sewer Crosses Flood Plain
(RV07)2202	- (RV07)2203	24	360	360	Sewer Crosses Flood Plain
(RV07)2203	- (RV07)2204	24	135	128	Sewer Crosses Flood Plain
(RV07)2204	- (RV07)2205	24	322	322	Sewer Crosses Flood Plain
(RV07)6020	- (RV07)6019	8	384	370	Concurrent Dye
(RV07)6087	- (RV07)6086	10	247	247	Visual Pipe Inspection
(RV07)6091	- (RV07)6090	10	59	57	Visual Pipe Inspection
(RV07)6092	- (RV07)6091	6	211	155	Visual Pipe Inspection
(RV07)6097	- (RV07)6093	10	353	106	Visual Pipe Inspection
(RV07)6135	- (RV07)6134	12	245	230	Visual Pipe Inspection
(RV07)6356	- (RV07)6355	6	243	243	Concurrent Dye
(RV14)1013	- (RV14)1009	6	299	299	Concurrent Dye
(RV14)1015	- (RV14)1014	6	302	160	Potential Main Line
(RV14)1030	- (RV14)1022	21	384	384	Sewer Crosses Flood Plain
(RV14)1031	- (RV14)T- CONN	15	61	61	Sewer Crosses Flood Plain
(RV14)1032	- (RV14)1030	15	286	286	Sewer Crosses Flood Plain
(RV14)1032	- (RV14)T-CONN	12	28	28	Concurrent Dye
(RV14)1033	- (RV14)1031	15	394	394	Sewer Crosses Flood Plain
(RV14)1035	- (RV14)1035A	10	299	299	Potential Main Line
(RV14)1035A	- (RV14)1033	15	95	95	Potential Main Line
(RV14)1042	- (RV14)1041	15	401	401	Visual Pipe Inspection
(RV14)1044	- (RV14)1044A	10	132	132	Concurrent Dye
(RV14)1044A	- (RV14)1036	10	280	280	Concurrent Dye
(RV14)1047	- (RV14)1046	6	445	125	Concurrent Dye
(RV14)1051	- (RV14)1005	6	282	282	Concurrent Dye
(RV14)1052	- (RV14)1024	10	301	301	Concurrent Dye
(RV14)1058	- (RV14)1032	12	281	281	Concurrent Dye
(RV14)1060	- (RV14)1059	6	300	300	Concurrent Dye
(RV14)1061	- (RV14)1060	6	299	30	Concurrent Dye
(RV14)1069	- (RV14)1070	10	409	406	Potential Main Line
(RV14)1074	- (RV14)1073	6	610	231	Inlet
(RV14)1075	- (RV14)1074	6	558	77	Inlet
(RV14)1080	- (RV14)1083	6	308	291	Concurrent Dye
(RV14)1081	- (RV14)1069	10	385	175	Inlet
(RV14)1084	- (RV14)2822	18	393	393	Sewer Crosses Flood Plain

Table 2-F (Cont.)

SUMMARY OF LINE SEGMENTS TELEVISED

Line Segment		Pipe Diameter (in)	Segment Length (lf)	Televised Length (lf)	Justification
(RV14)1085	- (RV14)1084	18	197	175	Sewer Crosses Flood Plain
(RV14)1086	- (RV14)1085	15	59	59	Sewer Crosses Flood Plain
(RV14)1087	- (RV14)1086	6	343	343	Sewer Crosses Flood Plain
(RV14)1091	- (RV14)1087	8	455	455	Sewer Crosses Flood Plain
(RV14)1092	- (RV14)2848	15	238	238	Sewer Crosses Flood Plain
(RV14)1093	- (RV14)2011	6	300	279	Sewer Crosses Flood Plain
(RV14)1094	- (RV14)1091	8	473	309	Sewer Crosses Flood Plain
(RV14)1095	- (RV14)2011	15	361	361	Sewer Crosses Flood Plain
(RV14)1103	- (RV14)2313	12	138	138	Potential Main Line
(RV14)1104	- (RV14)1103	12	305	294	Sewer Crosses Flood Plain
(RV14)1105	- (RV14)1104	12	301	301	Sewer Crosses Flood Plain
(RV14)1106	- (RV14)1105	12	318	301	Sewer Crosses Flood Plain
(RV14)1108	- (RV14)2814	6	144	82	Sewer Crosses Flood Plain
(RV14)1110	- (RV14)1109	6	293	124	Potential Main Line
(RV14)1111	- (RV14)1110	6	265	55	Sewer Crosses Flood Plain
(RV14)1112	- (RV14)1103	8	52	52	Sewer Crosses Flood Plain
(RV14)1146	- (RV14)1080	6	287	137	Concurrent Dye
(RV14)1153	- (RV14)1148	6	250	23	Concurrent Dye
(RV14)1162	- (RV14)1162B	8	281	248	Sewer Crosses Flood Plain
(RV14)1162B	- (RV14)1158	8	195	195	Sewer Crosses Flood Plain
(RV14)1213A	- (RV14)1162	8	252	233	Concurrent Dye
(RV14)1308A	- (RV14)1308	6	362	363	Concurrent Dye
(RV14)1516	- (RV14)1220	6	400	400	Potential Main Line
(RV14)1532	- (EV14)1531	6	241	0	Concurrent Dye
(RV14)1831	- (RV14)1069	6	308	307	Potential Main Line
(RV14)2176	- (RV14)2851	6	138	123	Sewer Crosses Flood Plain
(RV14)2308	- (RV14)2309	12	120	119	Sewer Crosses Flood Plain
(RV14)2309	- (RV14)2310	12	79	79	Sewer Crosses Flood Plain
(RV14)2310	- (RV14)1099	12	303	303	Visual Pipe Inspection
(RV14)2311	- (RV14)2311A	8	137	137	Sewer Crosses Flood Plain
(RV14)2311A	- (RV14)2308	8	110	110	Sewer Crosses Flood Plain
(RV14)2313	- (RV14)2308	12	213	109	Sewer Crosses Flood Plain
(RV14)2822	- (RV14)1030	18	402	402	Sewer Crosses Flood Plain
(RV14)2825	- (RV14)1085	12	303	303	Sewer Crosses Flood Plain
(RV14)2833	- (RV14)1228	6	352	352	Concurrent Dye
(RV14)2846	- (RV14)1098	6	441	425	Concurrent Dye
(RV14)2851	- (RV14)2848	6	267	0	Sewer Crosses Flood Plain
(RV14)EOL	- (RV14)1044	6	177	17	Potential Main Line
(RV14)EOL	- (RV14)1155	6	240	155	Concurrent Dye
(RV14)EOL	- (RV14)1300	6	196	61	Concurrent Dye

Table 2-F (Cont.)

SUMMARY OF LINE SEGMENTS TELEVISED

Line Segment	Pipe Diameter (in)	Segment Length (lf)	Televised Length (lf)	Justification
(RV14)T-CONN - (RV14)1030	15	226	226	Potential Maintenance
(RV23)1028 - (RV23)2058	6	295	295	Potential Main Line
(RV23)1077 - (RV23)1476	6	225	224	Potential Main Line
(RV23)1473 - (RV23)1474	6	289	174	Potential Main Line
(RV23)1474 - (RV23)1475	6	290	275	Potential Main Line
(RV23)1475 - (RV23)1476	6	313	313	Potential Main Line
(RV23)1482 - (RV23)1018	8	50	50	Inlet
(RV23)1501 - (RV23)1496	6	300	300	Potential Main Line
(RV23)1502 - (RV23)1497	6	317	123	Potential Main Line
(RV23)1503 - (RV23)1498	6	279	132	Potential Main Line
(RV23)1504 - (RV23)1501	6	305	298	Potential Main Line
(RV23)1505 - (RV23)1502	6	300	300	Potential Main Line
(RV23)1509 - (RV23)1504	6	303	119	Potential Main Line
(RV23)1510 - (RV23)1505	6	354	319	Potential Main Line
(RV23)1512 - (EV23)1509	6	544	543	Concurrent Dye
(RV23)1515 - (RV23)1512	6	272	46	Concurrent Dye
(RV23)1518 - (RV23)1513	6	296	296	Potential Main Line
(RV23)1523 - (RV23)1518	6	306	306	Potential Main Line
(RV23)1556 - (RV23)1488	10	307	307	Sewer Crosses Flood Plain
(RV23)1557 - (RV23)1556	10	325	325	Concurrent Dye
(RV23)1559 - (RV23)1558	10	253	231	Sewer Crosses Flood Plain
(RV23)1563 - (RV23)1567	10	223	145	Visual Pipe Inspection
(RV23)1567 - (RV23)1559	10	188	23	Sewer Crosses Flood Plain
(RV23)1569 - (RV23)1563	10	310	310	Potential Main Line
(RV23)2058 - (RV23)1482	6	305	301	Concurrent Dye
(RV23)2859A - (RV23)1489	6	233	0	Concurrent Dye
Total		29,349	23,557	

I/I SOURCE DATA ANALYSIS

DETERMINATION OF INFLOW

Inflow in a sanitary sewer system is defined as extraneous flow that is a direct result of stormwater runoff. Inflow may enter the sanitary sewer system through directly connected downspouts, area drains, cleanouts, and building sewers. Inflow may also enter the system through direct or indirect connections between the sanitary sewers and storm drains or ditches, sewer line defects, and through defective manhole covers, frame seals, corbels and manhole walls.

The Phase 1 Study projected 2-year/60-minute inflow rates (1.80 inches/hour) for each of the sub basins. In order to compare identified source inflow with model predicted inflow, the modeled inflow rates were converted to 1-year/60-minute inflow rates (1.45 inches/hour). For reference, a summary listing of the modeled 1-year/60-minute inflow and 2-year/60-minute inflow for the selected Phase 2 basins is given in Table 3-A along with unit inflow expressed in gallons per day per 1,000 linear feet of sewer to express the relative magnitude of peak inflow amongst meter basins.

INFLOW SOURCE QUANTIFICATION

All inflow sources identified during manhole inspections and rainfall simulation were evaluated and quantified for Basins RV07, RV14 and RV23. Quantification of individual sources was based on a 1-year/60-minute storm. The summary of inflow identified in the selected sub-basins by source type is given in Table 3-B and shown graphically on page 3-4.

The total quantified inflow from all sources identified through field investigation was estimated to be approximately 2.914 mgd for the selected basins during a 1-year/60-minute design storm. This equates to approximately 62 percent of the predicted Phase 1 inflow.

Table 3-A

**SUMMARY OF PROJECTED INFLOW RATES
SELECTED BASINS**

Basin	Basin Size (lf)	Basin Peak 1-Year/60-Minute Discrete Inflow Rate (mgd)	Basin Peak 1-Year/60-Minute Discrete Inflow Rate (gpd/1,000 lf)	Basin Peak 2-Year/60-Minute Discrete Inflow Rate (mgd)	Basin Peak 2-Year/60-Minute Discrete Inflow Rate (gpd/1,000 lf)	Ranking^{1/}
RV07	55,474	0.774	12,233	0.961	15,186	13 ^{2/}
RV14	57,878	3.136	50,628	3.893	62,847	1
RV23	<u>21,123</u>	<u>0.748</u>	<u>34,539</u>	<u>0.928</u>	<u>42,888</u>	3
Total	134,475	4.710	32,467 (average)	5.782	40,307 (average)	

^{1/} Ranking from highest to lowest inflow rate with 1 being the highest rate of the thirty-one basins studied during the 2010 - 2011 SSES Phase 1 Study.

^{2/} The basins studied during the Phase 2 analysis were identified from the flow monitoring data. Once the hydraulic model for the system was completed a few of the rankings changed.

Table 3-B

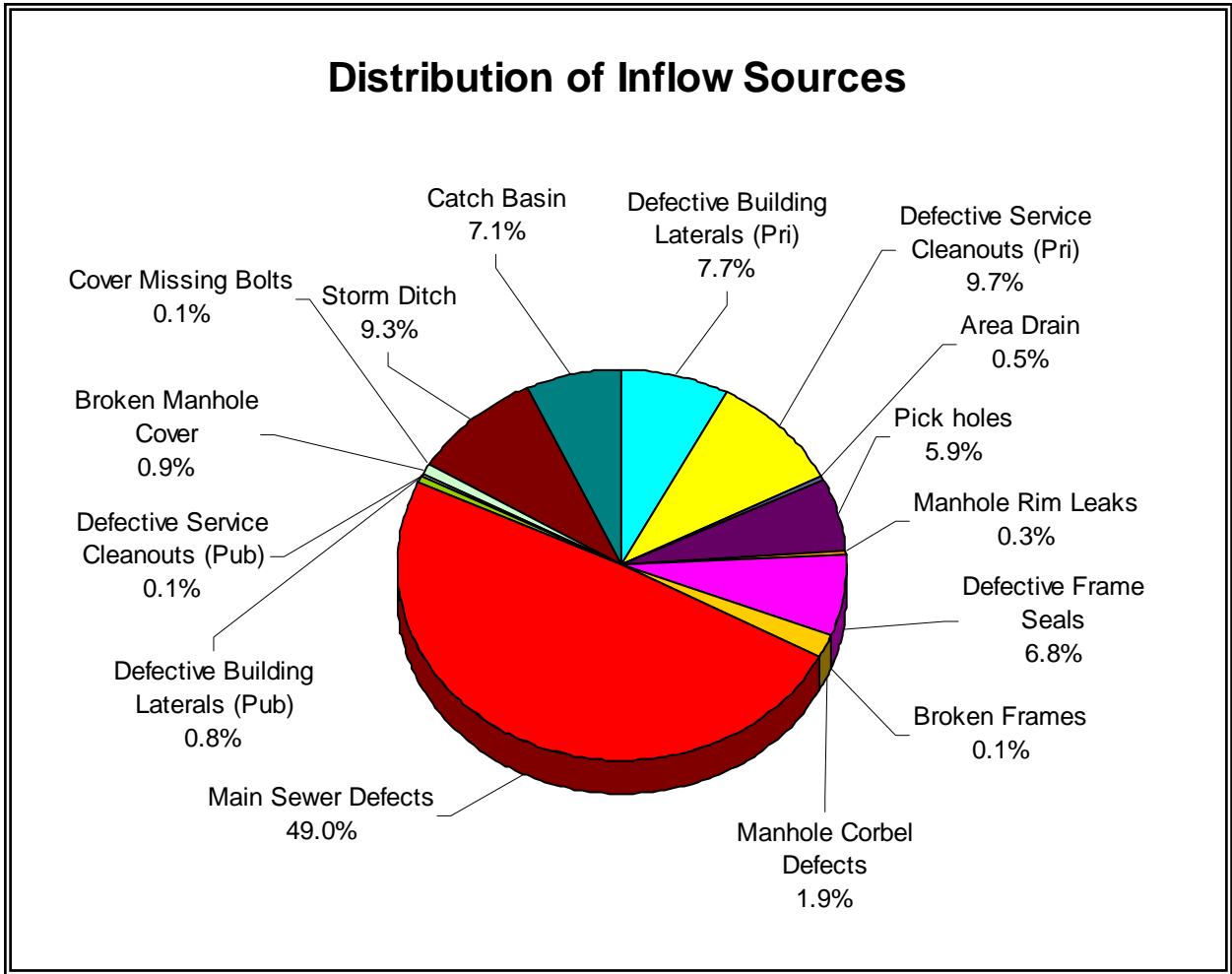
**DISTRIBUTION OF INFLOW SOURCES
SELECTED BASINS**

Source	Quantity	1-Year/60-Minute Projected Peak Inflow (gpd)	Percent of Inflow ^{1/}
<u>Public Sector Inflow</u>			
Pick holes	229	171,578	5.89
Manhole Rim Leaks	11	8,784	0.30
Defective Frame Seals	148	197,280	6.77
Broken Frames	13	2,246	0.08
Manhole Corbel Defects	58	55,656	1.91
Main Sewer Defects	44 ^{2/}	1,428,163	49.00
Defective Building Lateral	17	22,105	0.76
Defective Service Cleanouts	2	2,318	0.08
Broken Manhole Cover	13	26,830	0.92
Cover Missing Bolts	2	2,016	0.07
Storm Ditch	3	270,907	9.30
Catch Basin	<u>8</u>	<u>205,790</u>	<u>7.06</u>
Subtotal	548	2,393,673	82.14
<u>Private Sector Inflow</u>			
Defective Building Lateral	159	223,085	7.65
Defective Service Cleanout	142	283,312	9.72
Area Drain	<u>1</u>	<u>14,400</u>	<u>0.49</u>
Subtotal	<u>302</u>	<u>520,797</u>	<u>17.86</u>
Total	850	2,914,470	100.00

^{1/} Based on source data.

^{2/} One main line sewer defect removed as an inflow source due to later confirmation of defect as a building lateral already accounted for.

Distribution of Inflow Sources



DETERMINATION OF INFILTRATION

Infiltration in a sanitary sewer system is defined as extraneous flow that enters the system through pipe joints, sewer line defects (including main sewer lines and building sewer lines), defective manhole walls, benches, and pipe seals. Two types of infiltration can be determined during a study, permanent infiltration and peak infiltration. Permanent infiltration is defined as extraneous flow that enters the system through the ground during periods of dry-weather and low-groundwater. Peak infiltration is defined as the maximum extraneous flow that enters the sewer system during high-groundwater conditions after the inflow effects of a rain event have ended. Peak infiltration was determined during the Flow Monitoring Study and used during SSES to evaluate the effects of infiltration on the sewer system.

Analyses of wastewater infiltration were based on flow monitoring data and I/I source data from field investigations, specifically manhole and visual pipe inspection, rainfall simulation, and internal television inspection of sewer lines.

INFILTRATION SOURCE QUANTIFICATION

Each of the infiltration sources identified during field investigations was evaluated and quantified in reference to the corresponding basin and line segment. The infiltration rate was estimated based on the severity of the defect. A potential infiltration rate was estimated for each manhole and pipe defect that was observed but not actively leaking. The sum of all observed infiltration sources is referred to as total identified infiltration. The difference between total identified infiltration and peak monitored infiltration is total unidentified infiltration.

Total identified infiltration in Basins RV07, RV14 and RV23 was quantified to be approximately 0.188 mgd. The total identified infiltration for the study basins is summarized by source type in Table 3-C and shown graphically on page 3-6.

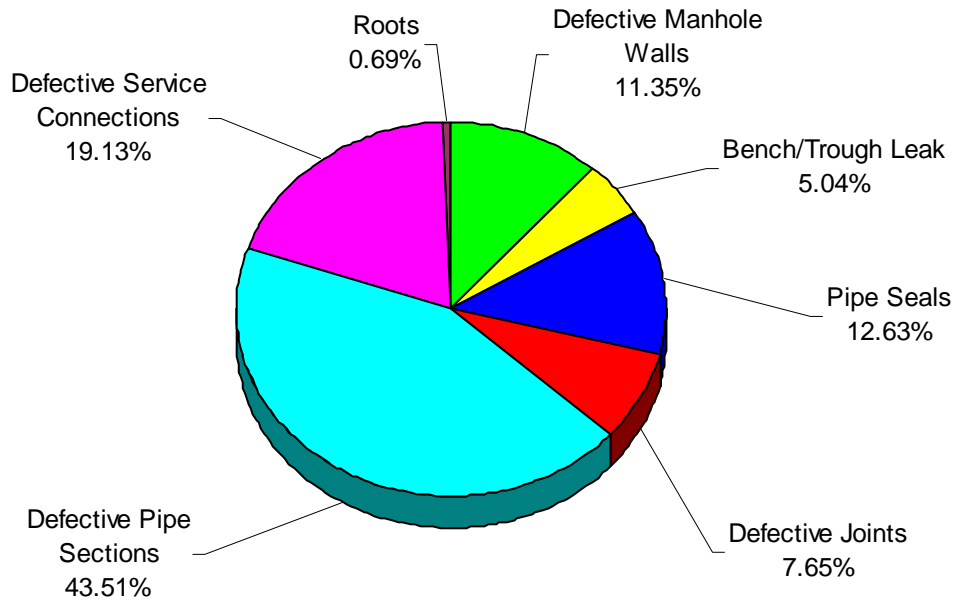
Table 3-C

DISTRIBUTION OF IDENTIFIED INFILTRATION SOURCES^{1/}

Source	Quantity	Estimated Infiltration Rate (gpd)	Percent of Total Infiltration ^{1/}
<u>Manhole Defects</u>			
Defective Manhole Walls	63	21,413	11.35
Bench/Trough Leak	27	9,504	5.04
Pipe Seals	<u>24</u>	<u>23,818</u>	<u>12.63</u>
Subtotal	114	54,735	29.02
<u>Internal Pipe Defects</u>			
Defective Joints	179	14,429	7.65
Defective Pipe Sections	401	82,048	43.51
Defective Service Connections	167	36,072	19.13
Roots	<u>6</u>	<u>1,296</u>	<u>0.69</u>
Subtotal	<u>753</u>	<u>133,845</u>	<u>70.98</u>
Total Identified Infiltration	867	188,580	100.00

^{1/} Based on identified infiltration.

Identified Infiltration Sources



RECOMMENDED REHABILITATION

Once the Inflow/Infiltration (I/I) sources have been identified and data analysis is completed, recommended rehabilitation methods are determined. The recommended methods are focused in three areas: sanitary sewer line, manhole, and service line sources.

SEWER REPLACEMENT/REHABILITATION

Television inspection data was evaluated for repair of specific I/I and maintenance defects. I/I defects are those defects where smoke was visible along a mainline or at a storm sewer and dyed water flooding concurrent with television inspection confirmed the defect. Maintenance defects are those defects that would justify repair or replacement based on their potential to cause future maintenance problems in the sewer system. Maintenance defects include sections of broken or cracked pipe and sections of pipe with sags, root intrusion, or other defects. The maintenance defects are not significant sources of I/I and would not be recommended for repair based on I/I removal alone, but recommended for repair to improve system reliability. The television inspection data was evaluated to determine if a sewer segment should be completely replaced or if a point repair should be made.

RJN Group, Inc. recommended that television inspection (CCTV) be performed on 106 sanitary sewer line segments (29,349 lf) based on the evaluation of the visual pipe, smoke, and dyed water testing. Approximately 5,792 linear feet of pipe was unable to be completely televised due to obstructions in the line such as offset joints, broken pipe and root masses.

Based on review of television inspection observations recorded by RJN Group, Inc. point repairs are recommended for 22 line segments and complete replacements are recommended for 49 line segments (16,268 lf). Replacement of sewer segments with multiple point repairs is also recommended. A list of point repairs is given in Table 4-A and a summary of line replacements in Table 4-B. Point repairs and line replacements are shown graphically on Exhibits 5-7. An overall study area map displaying all line replacements and point repairs is also shown in Exhibit 11.

Several line segments could not be completely televised during the field investigation work. There were three (3) lines that had heavy roots, debris, or mineral deposits that blocked the camera. Table 4-C identifies sewer lines that require heavy cleaning or point repairs before the lines can be re-televised and final recommendations can be made.

Table 4-A

**RECOMMENDED POINT REPAIRS
BASED ON TELEVISION INSPECTION**

Basin	Line Segment	Pipe Diameter (in)	Segment Length (lf)	Repair Location	Total Inflow ^{1/} (gpd)	Total Infiltration (gpd)	Estimated Construction Cost (\$)
<u>RV07</u>							
07	1738 - 1830	18	507	1+88 - 1+93 4+84 - 4+89	0 0	14 86	4,000 4,000
07	2202 - 2203	24	360	2+66 - 2+71	0	72	4,000
07	6087 - 6086	10	247	1+92 - 1+97 2+16 - 2+21	0 0	14 72	4,000 4,000
07	6356 - 6355	6	243	0+47 - 0+51	12,240	720	4,000
Subtotal			1,357		12,240	978	24,000
<u>RV14</u>							
14	1032 - 1030	15	286	0+62 ^{2/3/} 2+20 - 2+25 ^{2/}	49,622 0	216 101	4,000 4,000
14	1033 - 1031	15	394	0+71 - 0+76	0	130	4,000
14	1035 - 1035A	15	299	1+28 - 1+33	0	648	4,000
14	1042 - 1041	15	401	2+12 - 2+17 3+46 - 3+51 3+96 - 4+01 ^{4/}	0 0 0	216 216 72	4,000 4,000 8,000
14	1044 - 1044A	10	132	0+35 - 0+40	0	130	4,000
14	1058 - 1032	12	281	0+13 - 0+17 2+44 ^{3/}	122,933 0	72 216	4,000 4,000
14	1060 - 1059	6	300	1+10 - 1+15 ^{3/} 2+08 ^{3/}	278,510 0	936 216	5,000 4,000
14	1084 - 2822	18	393	2+64 ^{3/}	0	216	4,000
14	1086 - 1085	15	59	0+03 - 0+08	0	878	4,000
14	1095 - 2011	15	361	3+12 ^{3/}	0	202	4,000
14	1105 - 1104	12	301	2+69 - 2+74	0	130	4,000
14	1108 - 2814	6	144	0+70 - 0+80 ^{3/}	0	202	5,000
14	1162B - 1158	8	195	1+52 - 1+67	0	274	4,750
14	2310 - 1099	12	303	0+02 - 0+07 1+11 - 1+21 ^{3/}	0 0	72 288	4,000 5,000

^{1/} Based on 1-year/60-minute inflow.

^{2/} Measured from downstream manhole.

^{3/} Replace service lateral to property line.

^{4/} Replace Manhole.

^{5/} Point repair recommended due to pipe deformation.

^{6/} Sewer line recommended for upsizing from the Phase 1 Model and cost is included in the Phase 1 Report.

Table 4-A (Cont.)

**RECOMMENDED POINT REPAIRS
BASED ON TELEVISION INSPECTION**

RV14 (Cont.)

14	2311	-	2311A ^{5/}	8	137	0+95 - 1+05	0	0	5,000
14	2822	-	1030	18	402	3+01 ^{3/}	0	216	0 ^{6/}
						3+51 - 3+56	0	864	0 ^{6/}
14	T-CONN	-	1030	15	226	0+72 - 0+77	0	144	4,000
						1+20 - 1+25	0	144	4,000
						1+63	0	216	4,000

Subtotal					4,614		451,065	7,015	104,750
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RV23

23	1569	-	1563	10	310	0+29 - 0+34	0	144	4,000
						0+71 ^{3/}	0	216	4,000
						1+19 ^{3/}	4,320	216	4,000

Subtotal					<u>310</u>		<u>4,320</u>	<u>576</u>	<u>12,000</u>
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Total					6,281		467,625	8,569	140,750
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- 1/ Based on 1-year/60-minute inflow.
- 2/ Measured from downstream manhole.
- 3/ Replace service lateral to property line.
- 4/ Replace Manhole.
- 5/ Point repair recommended due to pipe deformation.
- 6/ Sewer line recommended for upsizing from the Phase 1 Model and cost is included in the Phase 1 Report.

Table 4-B

LINES RECOMMENDED FOR COMPLETE REHABILITATION

Basin	Line Segment	Existing Diameter (in)	Minimum Replacement Diameter ^{1/} (in)	Length (lf)	Total Inflow (gpd)	Total Infiltration (gpd)	Preliminary Recommendation for Rehabilitation	Estimated Construction Cost (\$)
<u>RV07</u>								
07	6020 - 6019	8	8	384	36,000	806	Pipe Bursting	53,760
07	6135 - 6134	12	12	<u>245</u>	<u>0</u>	<u>317</u>	CIPP	<u>40,425</u>
	Subtotal			629	36,000	1,123		94,185
<u>RV14</u>								
14	1013 - 1009	6	8	299	144,000	1,670	Pipe Bursting	44,850
14	1015 - 1014	6	8	302	52,934	1,066	Pipe Bursting	45,300
14	1044A - 1036	10	10	280	19,426	475	CIPP	46,200
14	1047 - 1046	6	8	445	144,000	504	Open Cut	66,750
14	1051 - 1005	6	8	282	16,718	4,306	Pipe Bursting	42,300
14	1052 - 1024	10	10	301	57,600	3,269	Pipe Bursting	49,665
14	1061 - 1060	6	8	299	108,000	1,627	Pipe Bursting	44,850
14	1069 - 1070	10	10	409	4,320	2,664	CIPP	67,485
14	1074 - 1073	6	8	610	21,600	979	Pipe Bursting	91,500
14	1075 - 1074	6	8	558	25,920	979	Pipe Bursting	83,700
14	1080 - 1083	6	8	308	141,120	5,127	Pipe Bursting	46,200
14	1081 - 1069	10	10	385	21,600	1,483	Open Cut	63,525
14	1088 - 1086	15	15	343	0	2,045	CIPP	63,455
14	1091 - 1087	8	8	455	0	922	Pipe Bursting	68,250
14	1093 - 2011	6	8	300	0	1,253	Open Cut	45,000
14	1094 - 1091	8	8	473	0	1,210	Pipe Bursting	70,950
14	1110 - 1109	6	8	293	17,280	1,598	Open Cut	43,950
14	1146 - 1080	6	8	287	72,000	317	Open Cut	43,050

^{1/} Final pipe size should be determined in design phase.

Table 4-B (Cont.)

LINES RECOMMENDED FOR COMPLETE REHABILITATION

Basin	Line Segment	Existing Diameter (in)	Minimum Replacement Diameter ^{1/} (in)	Length (lf)	Total Inflow (gpd)	Total Infiltration (gpd)	Preliminary Recommendation for Rehabilitation	Estimated Construction Cost (\$)
<u>RV14 (Cont.)</u>								
14	1162 - 1162B	8	8	281	0	2,160	CIPP	39,340
14	1213A - 1162	8	8	252	11,650	2,088	Pipe Bursting	35,280
14	1308A - 1308	6	8	362	27,893	1,426	Pipe Bursting	54,300
14	1516 - 1220	6	8	400	8,640	6,840	Open Cut	60,000
14	1831 - 1069	6	8	308	4,320	1,901	Pipe Bursting	46,200
14	2825 - 1085	12	12	303	0	1,685	CIPP	53,025
14	2833 - 1228	6	8	352	15,379	5,458	Open Cut	52,800
14	2846 - 1098	6	8	441	19,901	2,131	Open Cut	66,150
14	EOL - 1155	6	8	240	6,754	2,390	Open Cut	36,000
14	EOL - 1300	6	8	<u>196</u>	<u>12,571</u>	<u>288</u>	Open Cut	<u>29,400</u>
	Subtotal			9,764	953,626	57,861		1,499,475
<u>RV23</u>								
23	1028 - 2058	6	8	295	4,320	3,110	Pipe Bursting	44,250
23	1077 - 1476	6	8	225	4,320	2,952	Pipe Bursting	33,750
23	1473 - 1474	6	8	289	10,080	1,526	Open Cut	43,350
23	1474 - 1475	6	8	290	17,280	1,238	Open Cut	43,500
23	1475 - 1476	6	8	313	7,200	4,666	Open Cut	46,950
23	1501 - 1496	6	8	300	10,080	3,888	Open Cut	45,000
23	1502 - 1497	6	8	317	7,200	1,757	Open Cut	47,550
23	1503 - 1498	6	8	279	7,200	1,555	Open Cut	41,850
23	1504 - 1501	6	8	305	10,080	1,368	Open Cut	45,750
23	1505 - 1502	6	8	300	4,320	2,390	Open Cut	45,000

^{1/} Final pipe size should be determined in design phase.

Table 4-B (Cont.)

LINES RECOMMENDED FOR COMPLETE REHABILITATION

Basin	Line Segment	Existing Diameter (in)	Minimum Replacement Diameter ^{1/} (in)	Length (lf)	Total Inflow (gpd)	Total Infiltration (gpd)	Preliminary Recommendation for Rehabilitation	Estimated Construction Cost (\$)
RV23 (Cont.)								
23	1510 - 1505	6	8	354	4,320	4,032	Open Cut	53,100
23	1512 - 1509	6	8	544	10,310	6,034	Open Cut	81,600
23	1515 - 1512	6	8	272	34,142	2,290	Open Cut	40,800
23	1518 - 1513	6	8	296	4,320	5,155	Pipe Bursting	44,400
23	1523 - 1518	6	8	306	4,320	3,614	Pipe Bursting	45,900
23	1556 - 1488	10	10	307	0	3,053	Pipe Bursting	50,655
23	1557 - 1556	10	10	325	0	5,314	Pipe Bursting	53,625
23	1559 - 1558	10	10	253	0	5,962	Open Cut	39,215
23	2058 - 1482	6	8	<u>305</u>	<u>27,259</u>	<u>5,054</u>	Open Cut	<u>45,750</u>
		Subtotal		<u>5,875</u>	<u>166,751</u>	<u>64,958</u>		<u>891,995</u>
		Total		16,268	1,156,377	123,942		2,485,655

^{1/} Final pipe size should be determined in design phase.

Table 4-C

LINES RECOMMENDED FOR ADDITIONAL INVESTIGATION AND MAINTENANCE

Basin	Line Segment	Pipe Diameter (in)	Length (lf)	Justification
07	1829 - 1738	18	91	Point Repair required at 0+06 – 0+11 Before Re-TV and Final Recommendation
07	6092 - 6091	6	211	Recommended Maintenance – root cutting
07	6097 - 6093	10	353	Recommended Maintenance – root cutting
14	1111 - 1110	6	265	Recommended Maintenance – root cutting, Before Re-TV and Final Recommendation
14	1153 - 1148	6	250	Point Repair required at 0+20 – 0+25 Before Re-TV and Final Recommendation
23	1509 - 1504	6	303	Recommended Maintenance – root cutting, Before Re-TV and Final Recommendation
23	1563 - 1567	10	223	Recommended Maintenance – root cutting, Remove heavy debris
23	1567 - 1559	10	<u>188</u>	Recommended Maintenance – root cutting, Remove heavy debris
Total			1,884	

RECOMMENDED MANHOLE REHABILITATION

Manhole I/I defects identified during field investigation were analyzed together to obtain recommendations for rehabilitation for each manhole and a cost to perform rehabilitation work. The recommended rehabilitation for each manhole addresses both Inflow and Infiltration defects identified within each manhole. Of the 498 manholes studied in Phase 1 and Phase 2, a total of 346 manholes were identified as requiring rehabilitation. A summary of the recommended manhole rehabilitation is shown in Table 4-D. Individual manhole rehabilitation recommendations are included in Appendix F. The recommended manhole rehabilitation is also shown graphically in Exhibits 8 – 10.

A list of typical rehabilitation methods for manholes and associated construction costs for both inflow and infiltration defects is given in Table 4-E.

Table 4-D

RECOMMENDED MANHOLE REHABILITATION

Rehabilitation Description^{2/}	Number of Manholes	Estimated Inflow^{1/} (gpd)	Estimated Infiltration (gpd)	Construction Cost (\$)
Replace Cover/Frame/Frame Seal	233	286,443	864	234,275
Install Bolts/Gasket for Bolted Cover	1	1,440	0	70
Seal Corbel Only	2	1,008	0	1000
Seal Corbel & Replace Cover/Frame/Frame Seal	7	15,755	360	10,575
Seal Corbel & Replace Frame Seal	5	15,984	0	6,325
Seal Wall Only	11	0	5,127	8,430
Coat Manhole and Grout Lower 18" of Manhole	6	2,016	1008	4,274
Grout Lower 18" of Manhole	8	0	4,321	2,400
Complete Manhole Rehab w/ New Frame and Cover	20	50,670	10,601	38,347
Complete Manhole Rehab w/o New Frame and Cover	2	1,008	1,685	3,543
Replace Cover/Frame/Frame Seal & Grout Lower 18"	18	19,170	14,403	23,400
Replace Cover/Frame/Frame Seal & Seal Wall	17	19,013	7,906	32,194
Replace Cover/Frame/Frame Seal & Coat Manhole	14	50,443	6,711	38,014
Repair Frame Seal & Grout Lower 18" of Manhole	<u>2</u>	<u>1,440</u>	<u>1,757</u>	<u>1,950</u>
Total	346	464,390	54,743	404,797

1/ Based on 1-year/60-minute storm.

2/ Final rehabilitation recommendations should be determined during design.

Table 4-E

**TYPICAL MANHOLE REHABILITATION
CONSTRUCTION COSTS^{1/}**

Description	Estimated Construction Cost (\$)
Replace Cover/Frame/Frame Seal	925-1,075
Install Bolts/Gasket for Bolted Cover	70
Repair Frame Seal	675-825
Seal Corbel Only	500
Seal Corbel & Replace cover/Frame/Frame Seal	1,425-1,575
Seal Corbel & Replace Frame Seal	1,175-1,325
Seal Wall Only	100 ^{2/}
Coat Manhole and Grout Lower 18"	400 ^{2/}
Grout Lower 18" of Manhole	300
Complete Manhole Rehab w/ New Frame and Cover	1,325-1,475 ^{2/}
Complete Manhole Rehab w/o New Frame and Cover	1,075-1,325 ^{2/}
Replace Cover/Frame/Frame Seal & Grout Lower 18"	1,225-1,375
Replace Cover/Frame/Frame Seal & Seal Wall	1,125-1,375 ^{2/}
Replace Cover/Frame/Frame Seal & coat Manhole & Grout Lower 18"	1,325-1,575
Install Bolts/Gasket for Bolted Cover & Seal Walls	170 ^{2/}
Install Bolts/Gasket for Bolted Cover & Coat Manhole & Grout Lower 18"	570 ^{2/}
Install Bolts/Gasket for Bolted Cover & Seal Corbel	600
Install Bolts/Gasket for Bolted Cover & Repair Frame Seal	745-895
Install Bolts/Gasket for Bolted Cover & Grout Lower 18" of Manhole	370
Repair Frame Seal & Grout Lower 18" of Manhole	975-1125
Coat Manhole	100 ^{2/}
Coat Manhole and Grout Lower 18" of Manhole	400

^{1/} Construction costs are based on recent bids in the area.

^{2/} Unit cost will vary per vertical foot.

RECOMMENDED INFLOW REMOVAL FROM SERVICE LINE SOURCES

A total of 321 service line inflow sources identified during the field survey investigations are recommended for removal from the selected basins. The indicated sources consist of 19 public sector and 302 private sector sources which will be eliminated through rehabilitation. This will remove approximately 0.677 mgd of 2-year/60-minute inflow. A summary of recommended service line inflow removal is given in Table 4-F and a detailed report is included in Appendix G.

Table 4-F

**SUMMARY OF RECOMMENDED INFLOW REMOVAL
FROM SERVICE LINE SOURCES**

Source	Quantity	1-Year/60-Minute Projected Peak Inflow (gpd)	2-Year/60-Minute Projected Peak Inflow (gpd)	Estimated Construction Cost (\$)
<u>Public Sector</u>				
Defective Building Lateral	17	22,105	27,440	51,000
Defective Service Cleanouts	<u>2</u>	<u>2,318</u>	<u>2,878</u>	<u>750</u>
Subtotal	19	24,423	30,318	51,750
<u>Private Sector</u>				
Defective Building Lateral	159	223,085	276,933	477,000
Defective Service Cleanout	142	283,312	351,697	49,950
Area Drain	<u>1</u>	<u>14,400</u>	<u>17,876</u>	<u>3,400</u>
Subtotal	<u>302</u>	<u>520,797</u>	<u>646,506</u>	<u>530,350</u>
Total	321	545,219	676,824	582,100

A list of typical rehabilitation methods for service line sources and associated construction costs for both inflow and infiltration defects is given in Table 4-G.

Table 4-G

**TYPICAL REHABILITATION/REPLACEMENT
CONSTRUCTION COSTS FOR SERVICE LINE SOURCES^{1/}**

Description	Rehabilitation	Estimated Construction Cost (\$)
<u>I/I Source Rehabilitation</u>		
Cross Connection	Replace Pipe (Point Repair)	4,000-5,000 ^{2/}
Broken Pipe	Replace Pipe (Point Repair)	4,000-5,000 ^{2/}
Downspouts	Redirect Downspouts	300
Area Drains	Disconnect Drains	1,200-1,500 ^{3/}
Building Sewer Point Repair	Replace Defective Pipe	1,200-1,500
Building Sewer Replacement	Replace Building Sewer	2,500
Building Sewer Cleanouts	Repair Cleanouts	200

^{1/} Construction costs are based on recent bids in the area.

^{2/} Unit cost will vary with pipe diameter, depth, and required surface restoration.

^{3/} Unit cost will vary based on location of redirect.

SUMMARY OF RECOMMENDED PLAN

The recommended rehabilitation plan consists of work to be performed in the public and private sector of the collection system. The plan includes inflow repairs, infiltration repairs, sewer line replacement/rehabilitation, maintenance repairs, and routine maintenance. The costs to perform the recommended plan is given in capital cost which includes construction cost and a 30 percent additional cost which includes administrative cost, legal fees, engineering fees, and contingencies. The recommended plan is discussed in the following sections.

RECOMMENDED LINE REHABILITATION

Sewer line rehabilitation is recommended for 49 line segments (16,268 lf) and point repairs are recommended on 22 sewer line segments. The recommended repair plan for both replacements and point repairs will eliminate approximately 2.016 mgd of 2-year/60-minute inflow and 0.133 mgd of infiltration at an estimated capital cost of \$3.414 million. A detailed discussion of the recommended plan for sewer line repair is included in Chapter 4. A summary of the plan is given in Table 5-A. A detailed list of line segments that are recommended for replacement and point repairs are included in Tables 4-A and 4-B.

Table 5-A

Item	Inflow Reduction ^{1/} (mgd)	Infiltration Reduction (mgd)	Estimated Capital Cost ^{2/} (\$ Million)
Point Repairs	0.580	0.009	0.183
Line Replacements	<u>1.436</u>	<u>0.124</u>	<u>3.231</u>
Total	2.016	0.133	3.414

^{1/} Based on 2-year/60-minute storm.

^{2/} Includes estimated construction cost plus a 30 percent engineering service fee, contingency fees, and legal fees.

RECOMMENDED ADDITIONAL INVESTIGATIONS

Multiple line segments shown on Table 4-C are recommended for maintenance and re-TV prior to final recommendation. Two (2) line segments in Table 4-C are recommended for point repair prior to re-TV for final recommendation.

RECOMMENDED MANHOLE REHABILITATION (I/I REMOVAL)

The recommended manhole rehabilitation plan includes the rehabilitation of 346 manholes contributing approximately 0.576 mgd of 2-year/60-minute inflow and 0.055 mgd of infiltration in Basins RV07, RV14, and RV23. The estimated capital cost would be approximately \$0.526 million.

The manholes recommended for rehabilitation are presented in the computer printout in Appendix F. An 11" x 17" map is provided for all manhole rehabilitation in Exhibits 8-10.

RECOMMENDED INFLOW REMOVAL FROM SERVICE LINE SOURCES

The recommended plan for service line inflow removal includes the repair of selected identified sources (321) discovered through field procedures. Each area of rehabilitation is addressed in the following sections.

There are 321 identified public and private sector sources contributing 0.677 mgd of 2-year/60-minute inflow recommended for repair. The capital cost to remove these sources is approximately \$0.756 million. A computer printout of the inflow sources recommended for repair is provided in Appendix G. A summary of the recommended plan for inflow reduction is given in Table 5-B.

The projected inflow reduction is based on the assumption that comprehensive rehabilitation repairs will be completed for the identified I/I sources and that the repairs will effectively eliminate I/I from those identified sources.

Table 5-B

SUMMARY OF RECOMMENDED PLAN FOR SERVICE LINE SOURCES INFLOW REMOVAL

Item	Quantity of Sources	2-Year Inflow Elimination (mgd)	Estimated Capital Cost^{1/} (\$ Million)
Public Sector	19	0.030	0.067
Private Sector	<u>302</u>	<u>0.647</u>	<u>0.689</u>
Total	321	0.677	0.756

^{1/} Includes estimated construction cost plus a 30 percent engineering service fee, contingency fees, and legal fees.

SUMMARY OF RECOMMENDED PLAN

The recommended plan includes repairing 321 inflow sources, 346 manholes recommended for rehabilitation, replacing or repairing 49 sewer lines (16,268 lf), and point repairs on 22 sewer lines. Approximately 0.188 mgd of infiltration will be eliminated by implementation of the recommended plan. The peak 2-year inflow in the study area is projected to be reduced by 3.269 mgd after rehabilitation of the recommended inflow sources.

Comparing all inflow reduction by completed rehabilitation work and recommended rehabilitation, overall inflow will be reduced by approximately 56 percent.

The total capital cost to implement the recommended plan is approximately \$4.696 million. The total capital cost consists of \$0.067 million for service line inflow removal from the public sector, \$0.689 million for service line inflow removal in the private sector, \$0.526 million for manhole rehabilitation, and \$3.414 million for main sewer replacement and repair. A summary of the recommended plan is given in Table 5-C

Table 5-C

SUMMARY OF RECOMMENDED PLAN

Item	I/I Reduction		Estimated Construction Cost (\$ Million)	Estimated Capital Cost ^{2/} (\$ Million)
	Inflow ^{1/} (mgd)	Infiltration (mgd)		
Sewer Replacement/Repairs	2.016	0.133	2.626	3.414
Manhole Rehabilitation	0.576	0.055	0.404	0.526
Service Line Rehabilitation				
Public Sector	0.030	N/A	0.052	0.067
Private Sector	<u>0.647</u>	<u>N/A</u>	<u>0.530</u>	<u>0.689</u>
Total	3.269	0.188	3.612	4.696

^{1/} Based on projected 2-year/60-minute inflow.

^{2/} Includes estimated construction cost plus a 30 percent engineering service fee, contingency fees, and legal fees.

RECOMMENDED REHABILITATION BY CATEGORY

The recommendation for rehabilitation was divided into two main groups. The first group consists of public sector repairs and includes all manhole repairs, main sewer point repairs, and public sector service line repairs. The second group includes private sector repairs that would be the responsibility of the private property owners. A summary of the rehabilitation by category is given in Table 5-D.

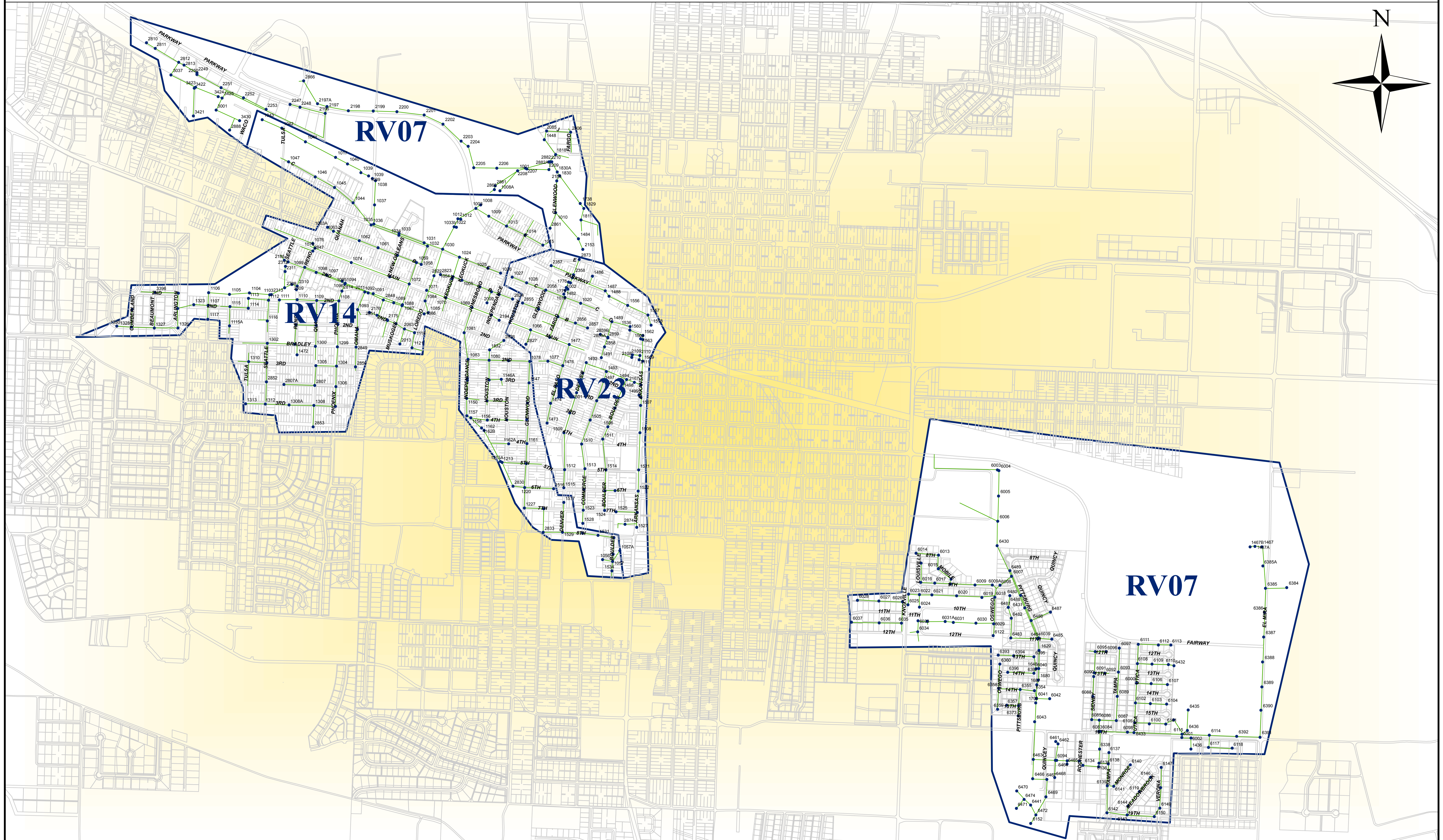
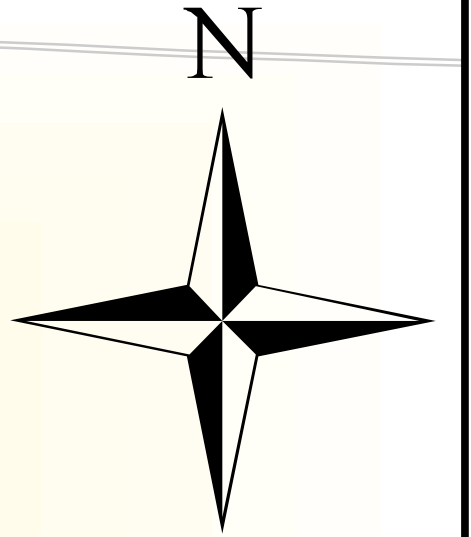
Table 5-D

SUMMARY OF REHABILITATION BY CATEGORY

Repair Category	Quantity	2-Year Inflow Reduction (mgd)	Infiltration Reduction (mgd)	Estimated Cost	
				Construction (\$ Million)	Capital ^{1/} (\$ Million)
<u>Public Sector Repairs</u>					
Manhole Rehabilitation	346	0.576	0.055	0.404	0.526
Public Sector Point Repairs	22	0.580	0.009	0.141	0.183
Public Sector Line Replacements	49	1.436	0.124	2.486	3.231
Public Sector Building Lateral	17	0.027	N/A	0.051	0.066
Public Sector Service Line and Cleanouts	<u>2</u>	<u>0.003</u>	<u>N/A</u>	<u><0.001</u>	<u><0.001</u>
Subtotal	437	2.622	0.188	3.082	4.007
<u>Private Sector Repairs</u>					
Cleanout and Service Line Repairs	142	0.352	N/A	0.050	0.065
Building Lateral	159	0.277	N/A	0.477	0.620
Area Drain	<u>1</u>	<u>0.018</u>	<u>NA</u>	<u>0.003</u>	<u>0.004</u>
Subtotal	<u>302</u>	<u>0.647</u>	<u>0</u>	<u>0.530</u>	<u>0.689</u>
Total	739	3.269	0.188	3.612	4.696

^{1/} Includes estimated construction cost plus a 30 percent engineering service fee, contingency fees, and legal fees.

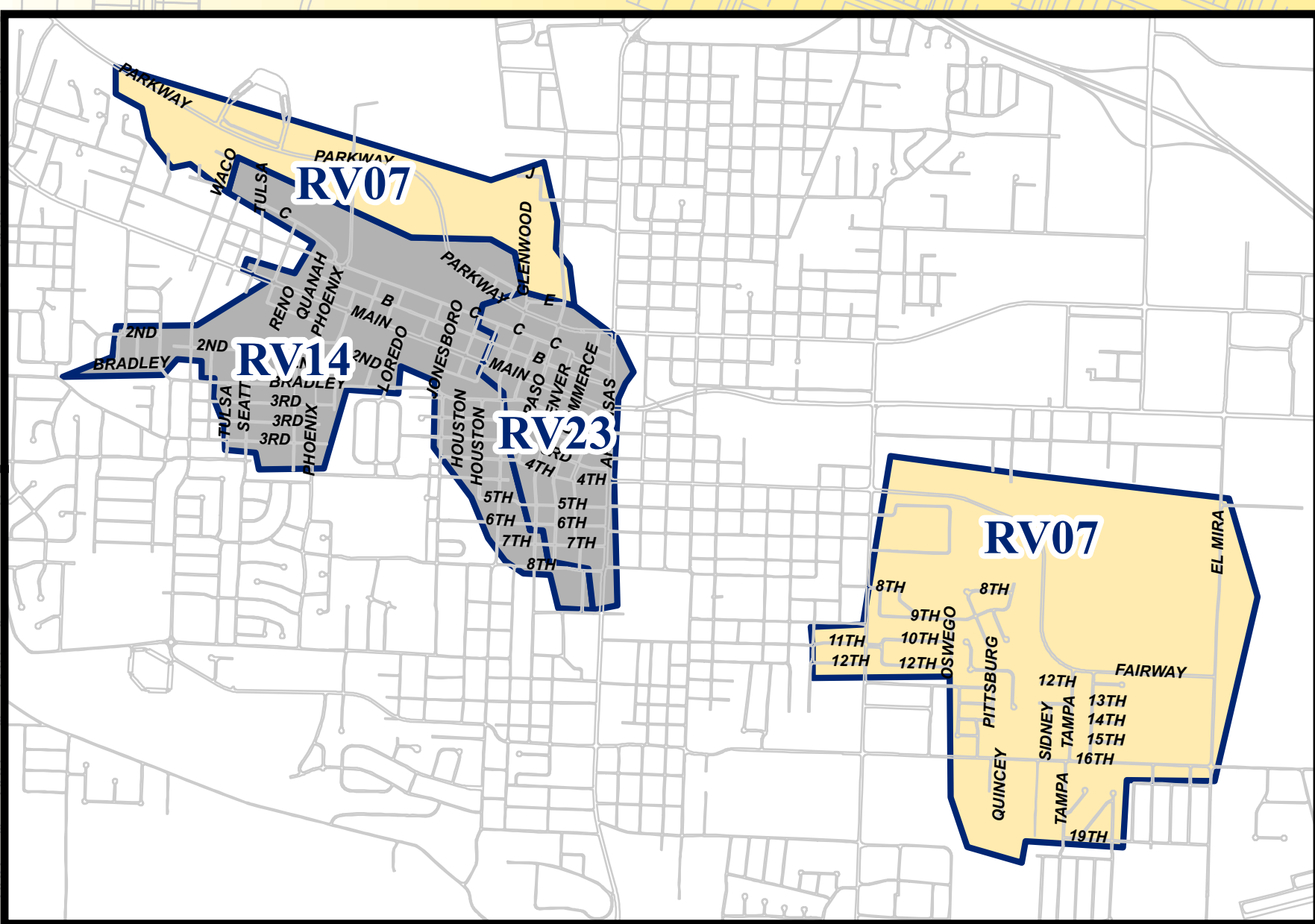
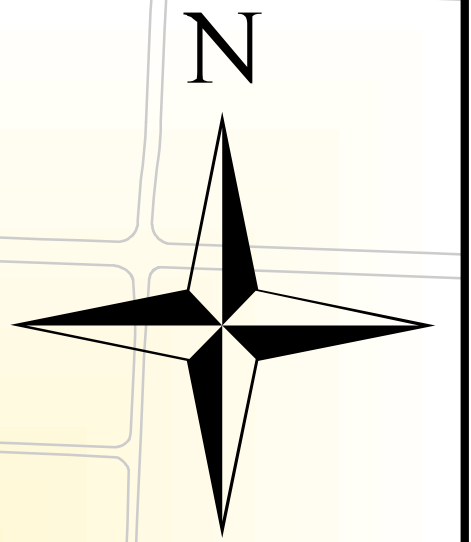
CITY OF RUSSELLVILLE, ARKANSAS



Legend

- Phase 2 Manholes
- Streets
- Phase 2 Sanitary Sewer
- ▭ Study Basins

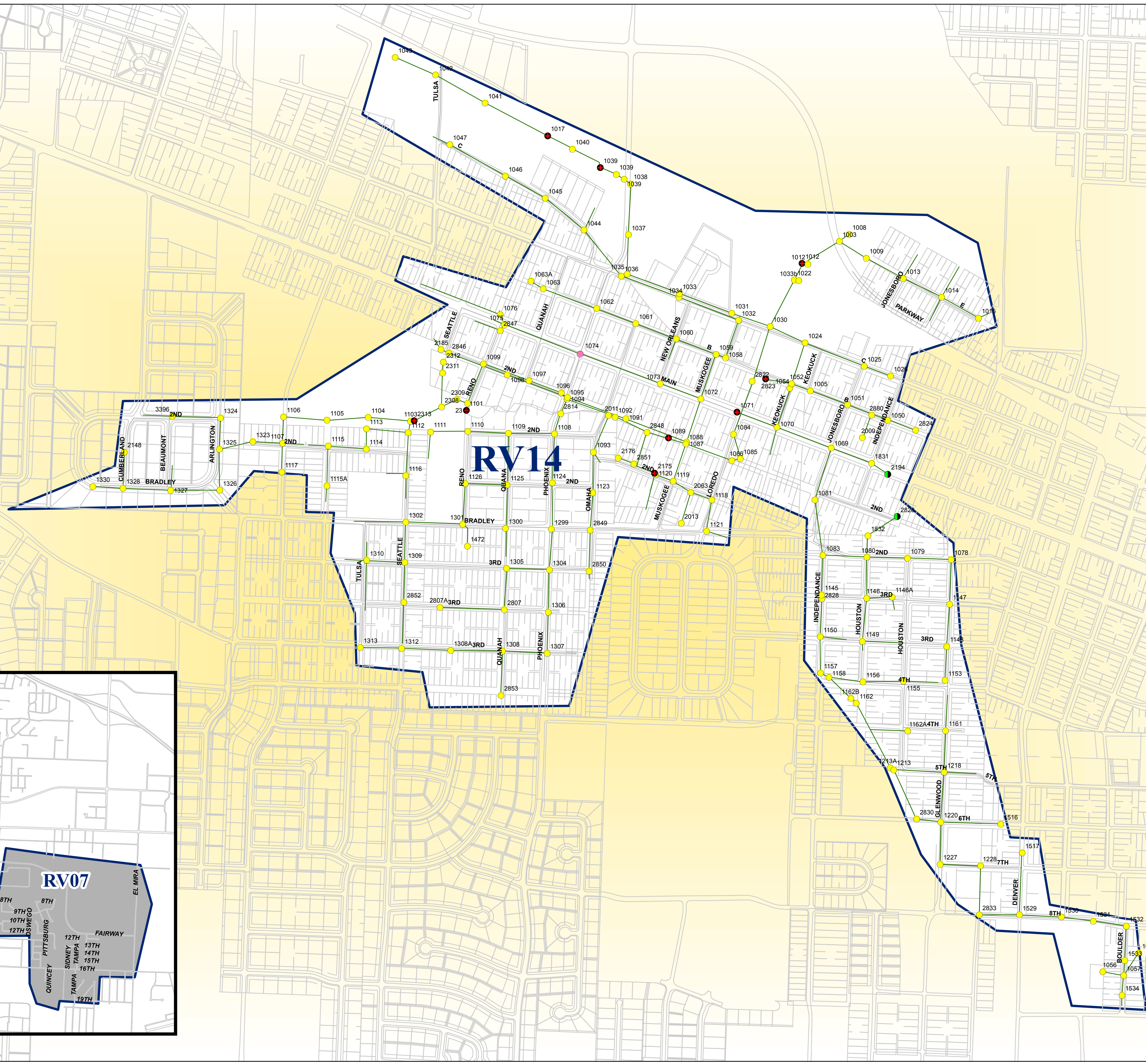
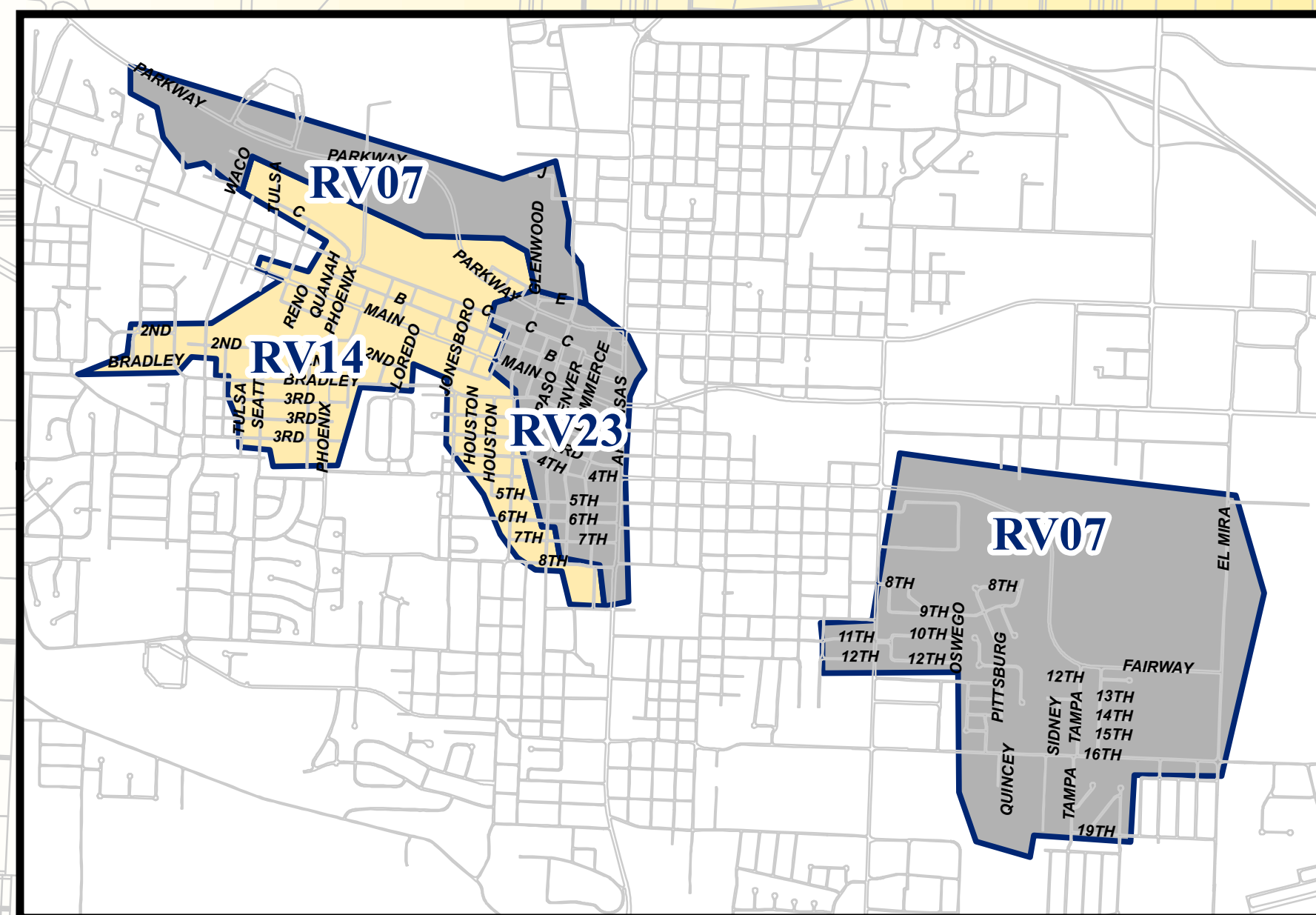
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Legend

- Phase 2 Sanitary Sewer
- Streets
- Inspected
- Buried
- Inaccessible
- Unable to locate
- Basin RV07

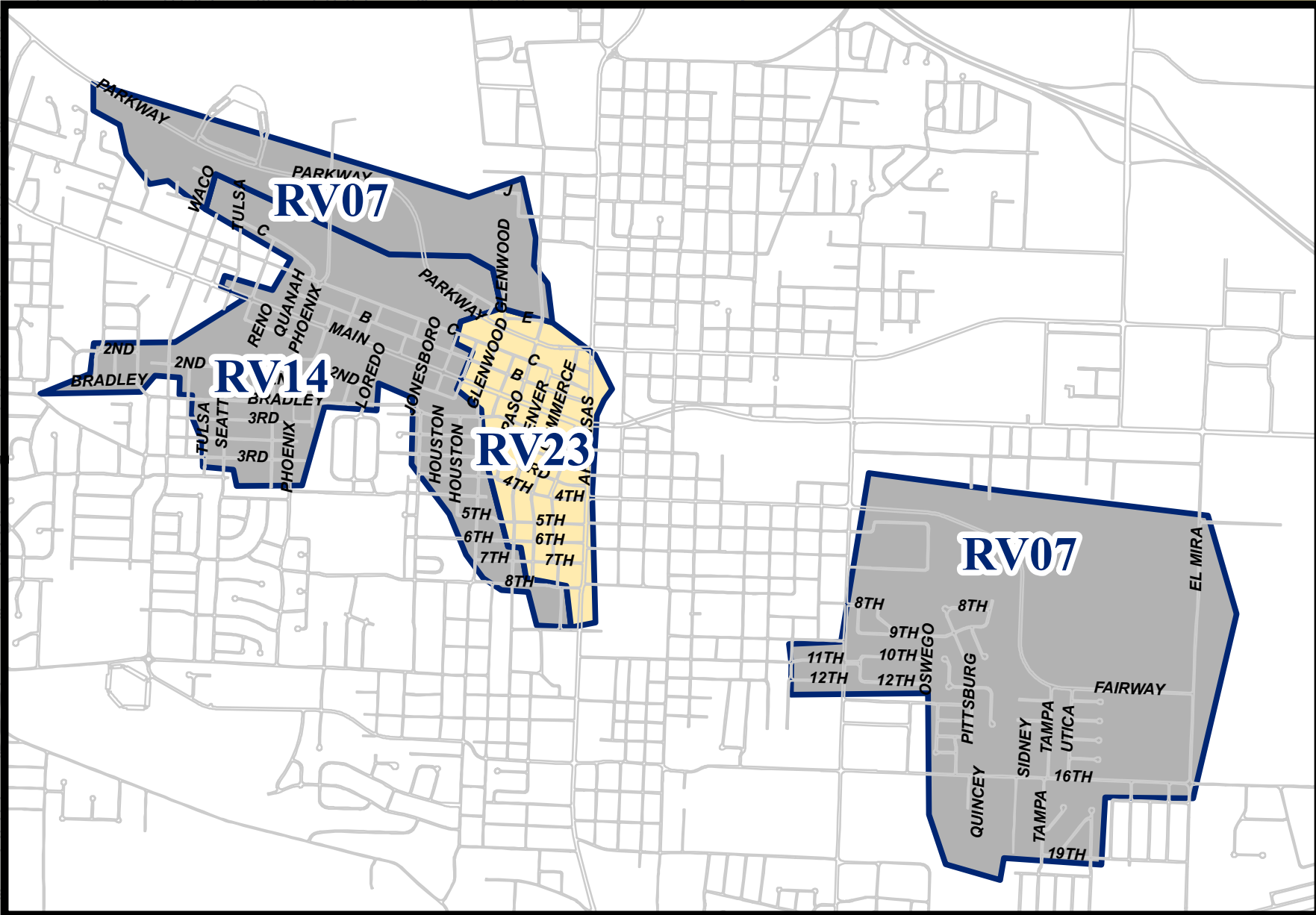
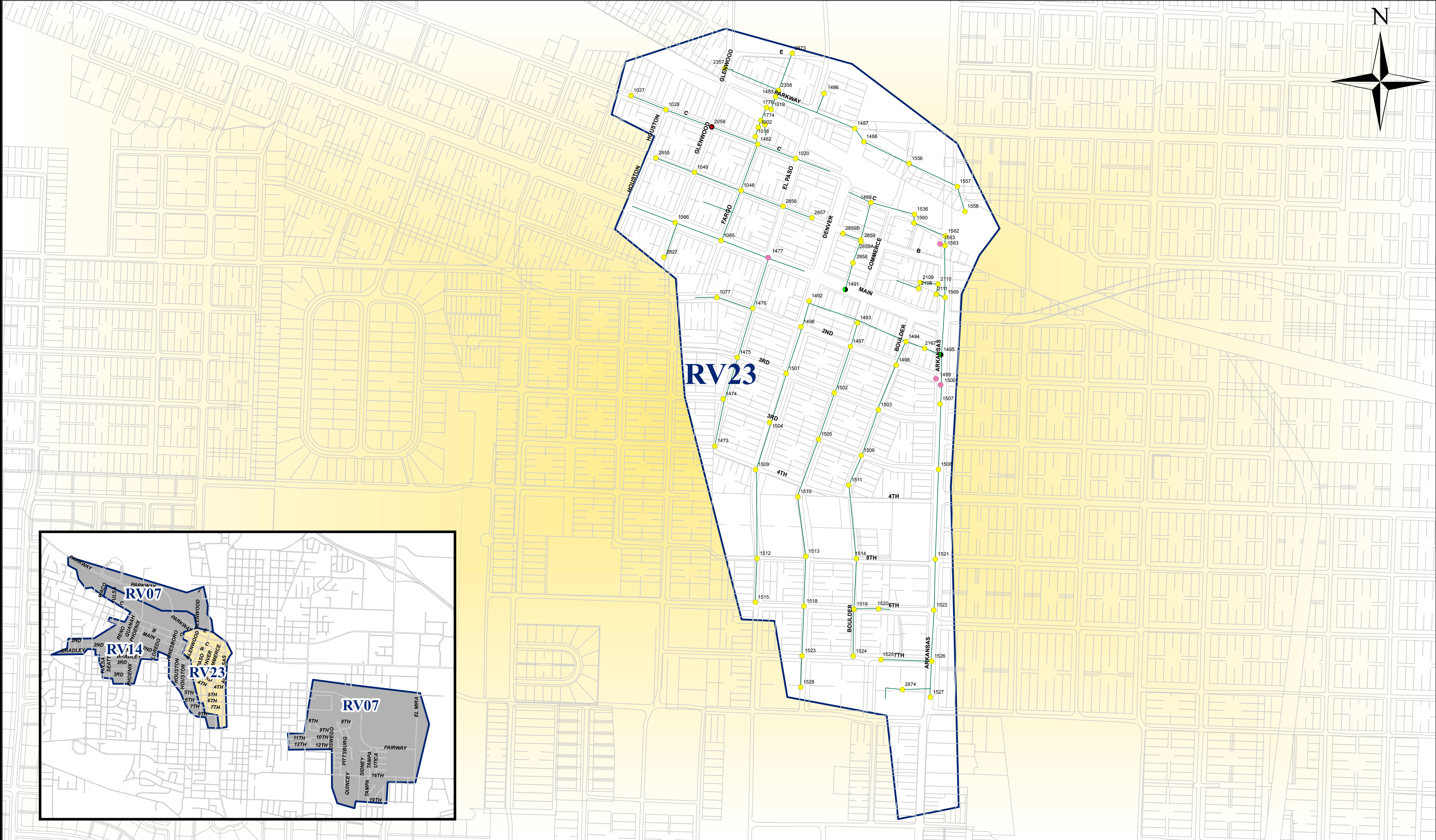
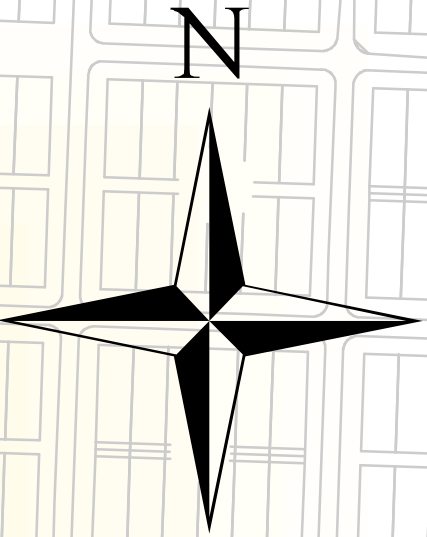
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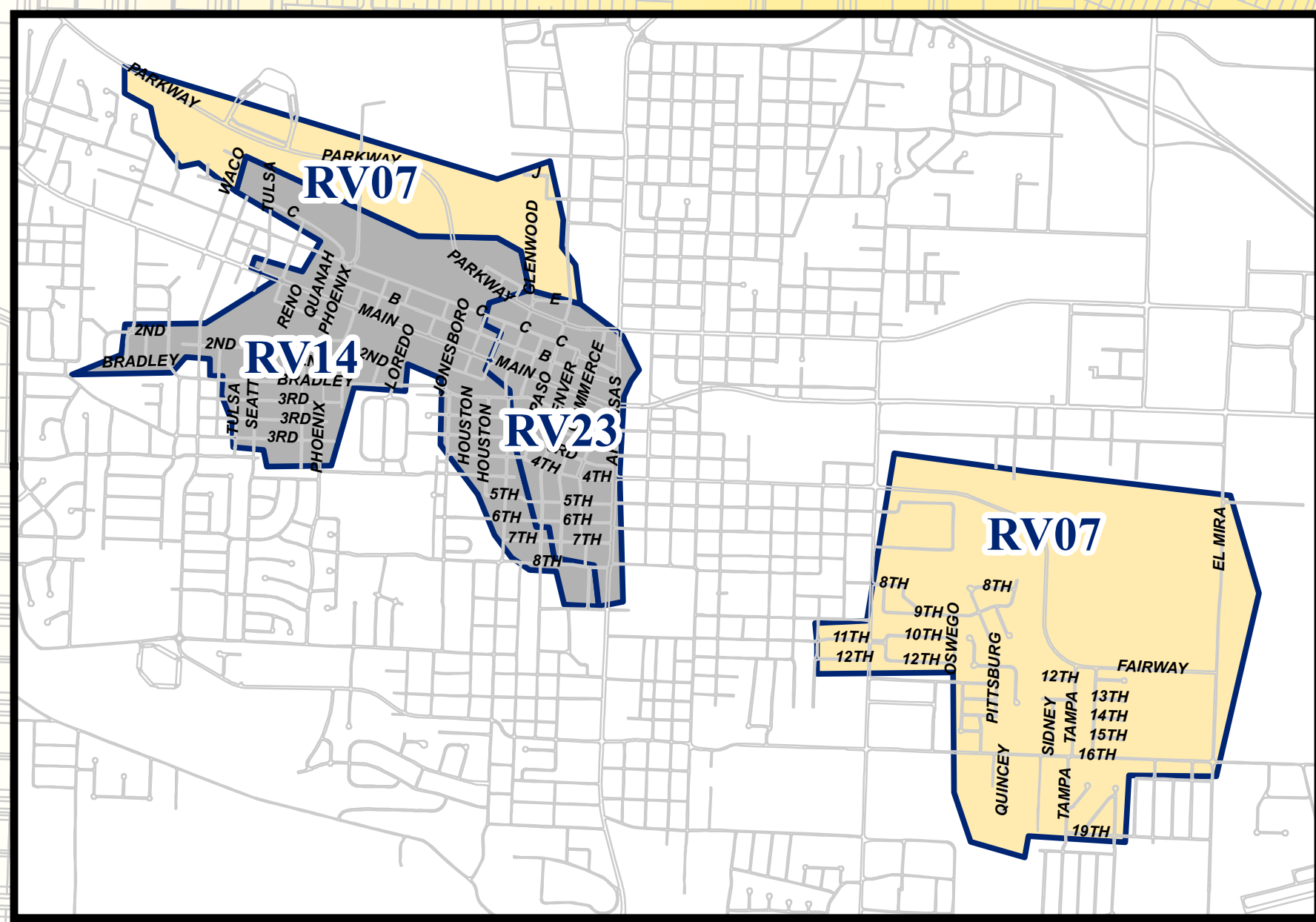
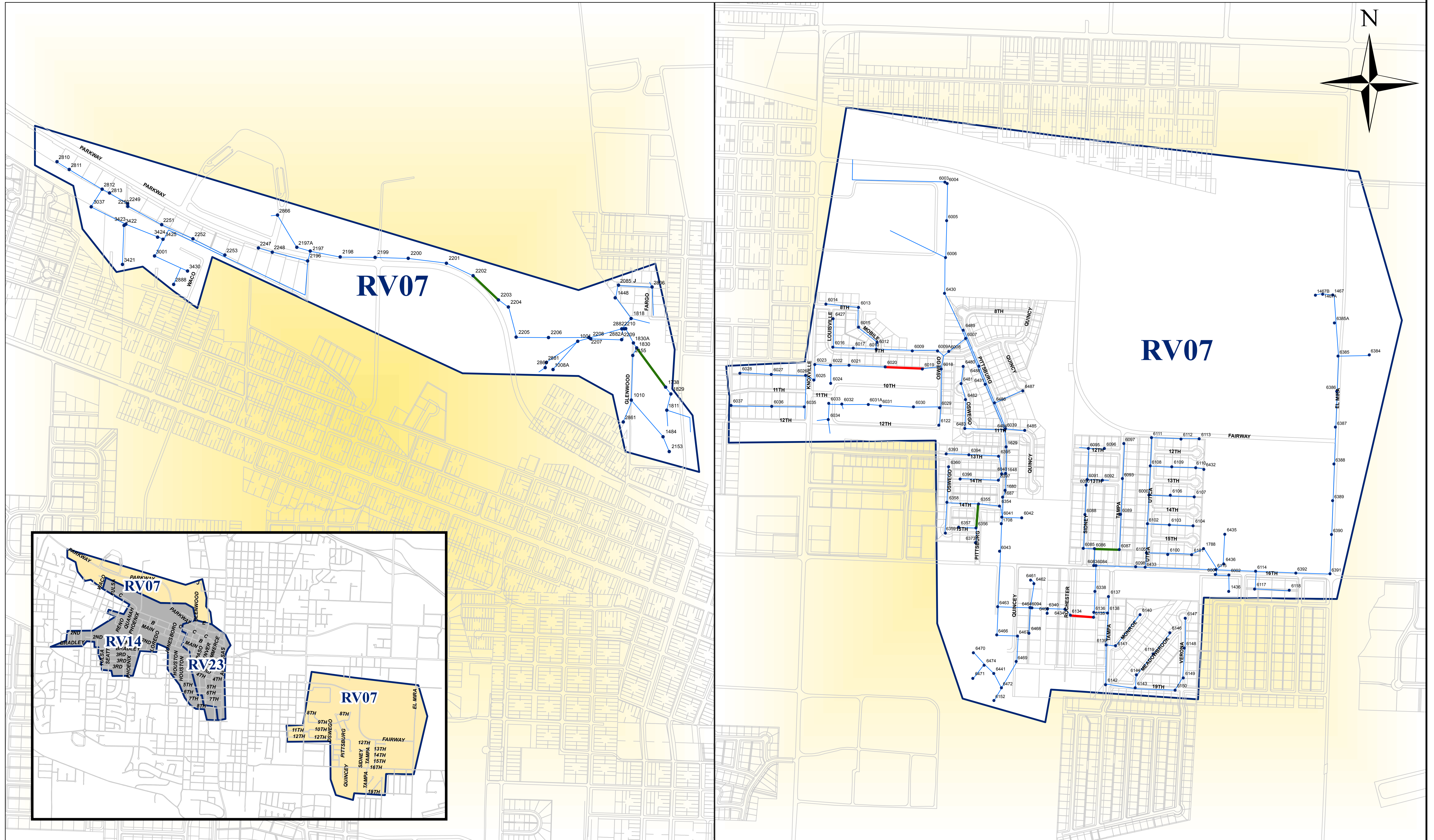
- Phase 2 Sanitary Sewer
- Inspected
- Buried
- Basin RV14
- Streets
- Inaccessible
- Unable to locate

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- Legend**
- Phase 2 Sanitary Sewer
 - Inspected
 - Buried
 - Basin RV23
 - Streets
 - Inaccessible
 - Unable to locate

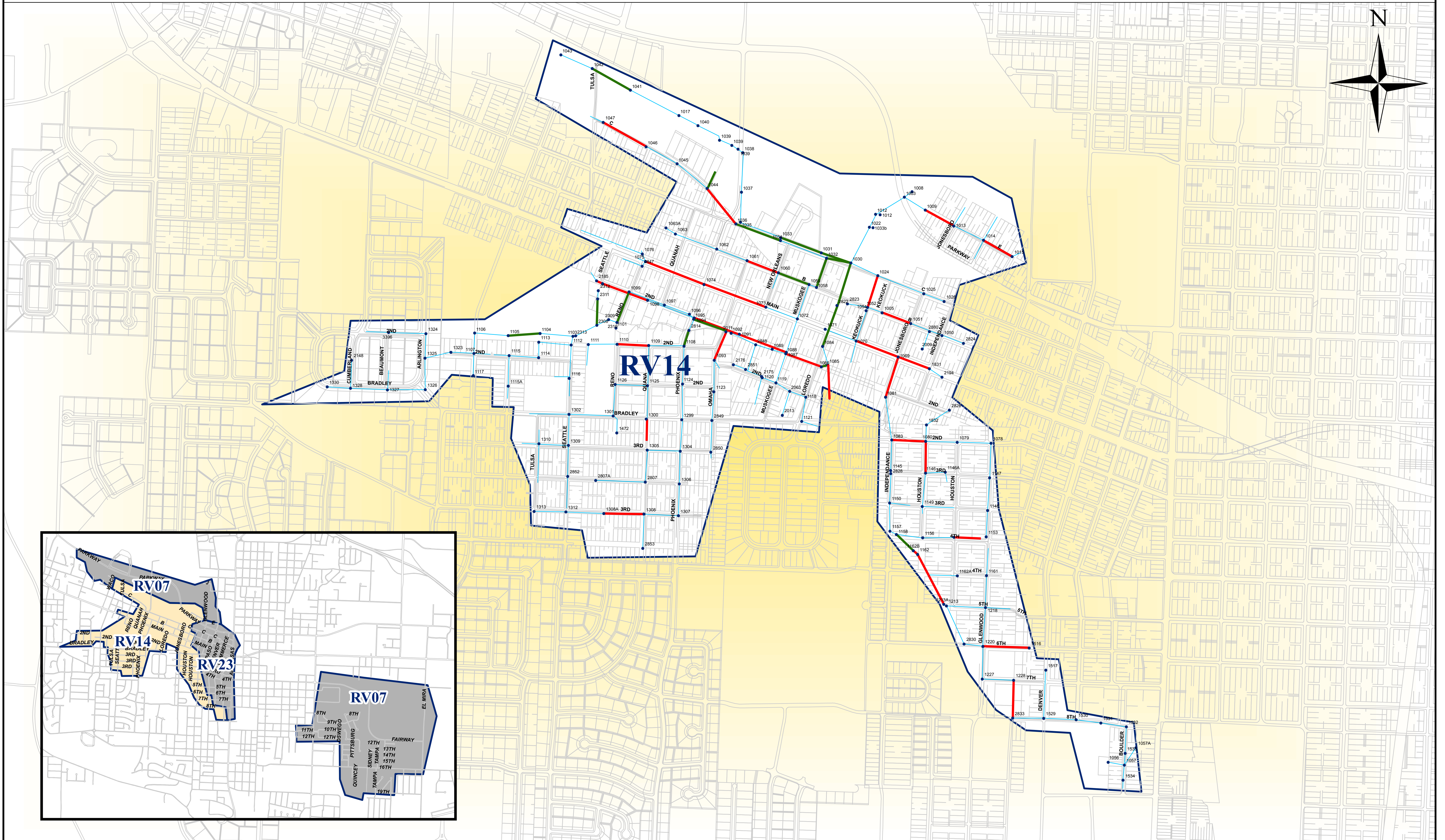
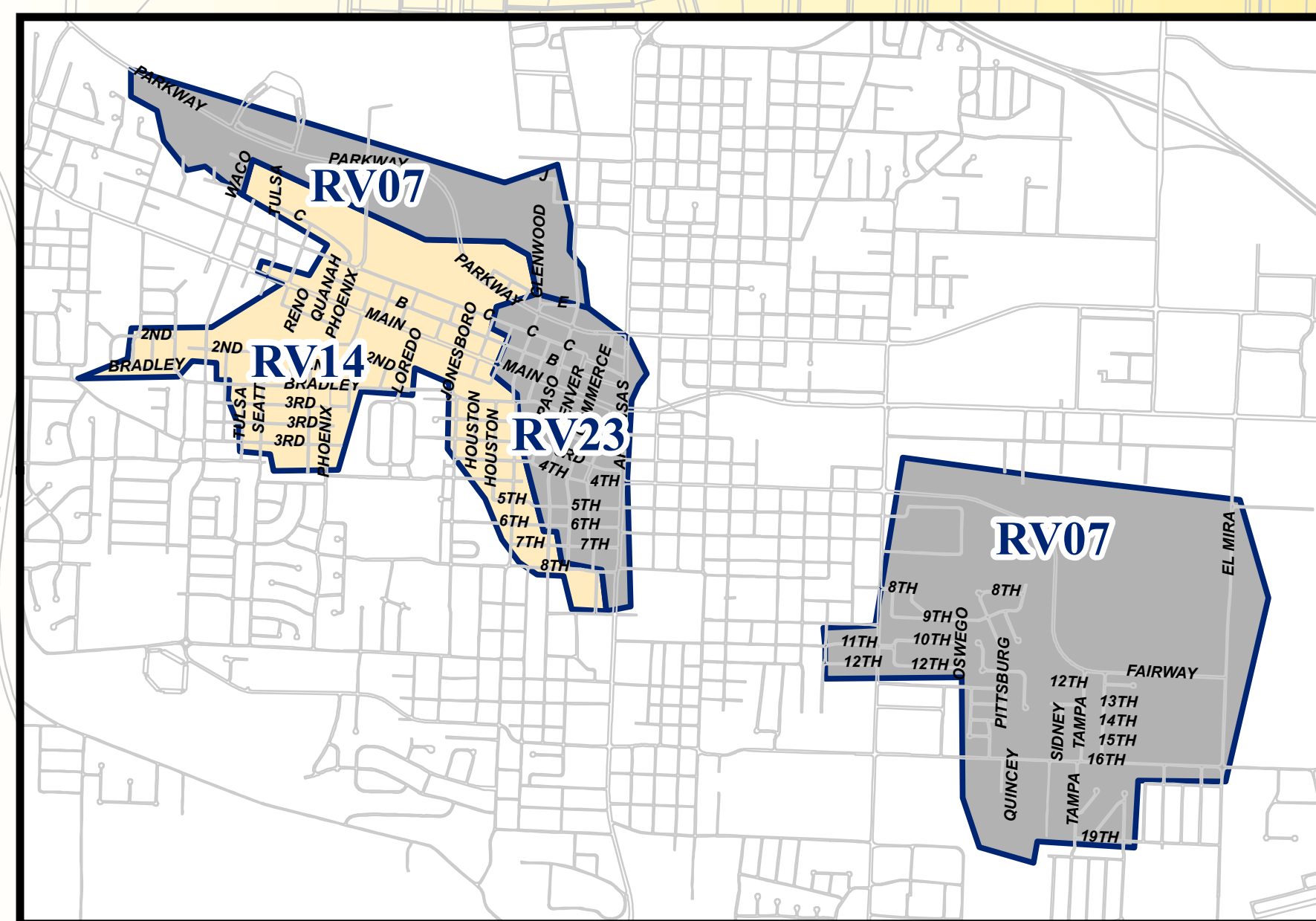
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Legend

- Phase 2 Manholes
- Streets
- Recommended Point Repair
- Phase 2 Sanitary Sewer
- Basin RV07
- Recommended Line Rehabilitation

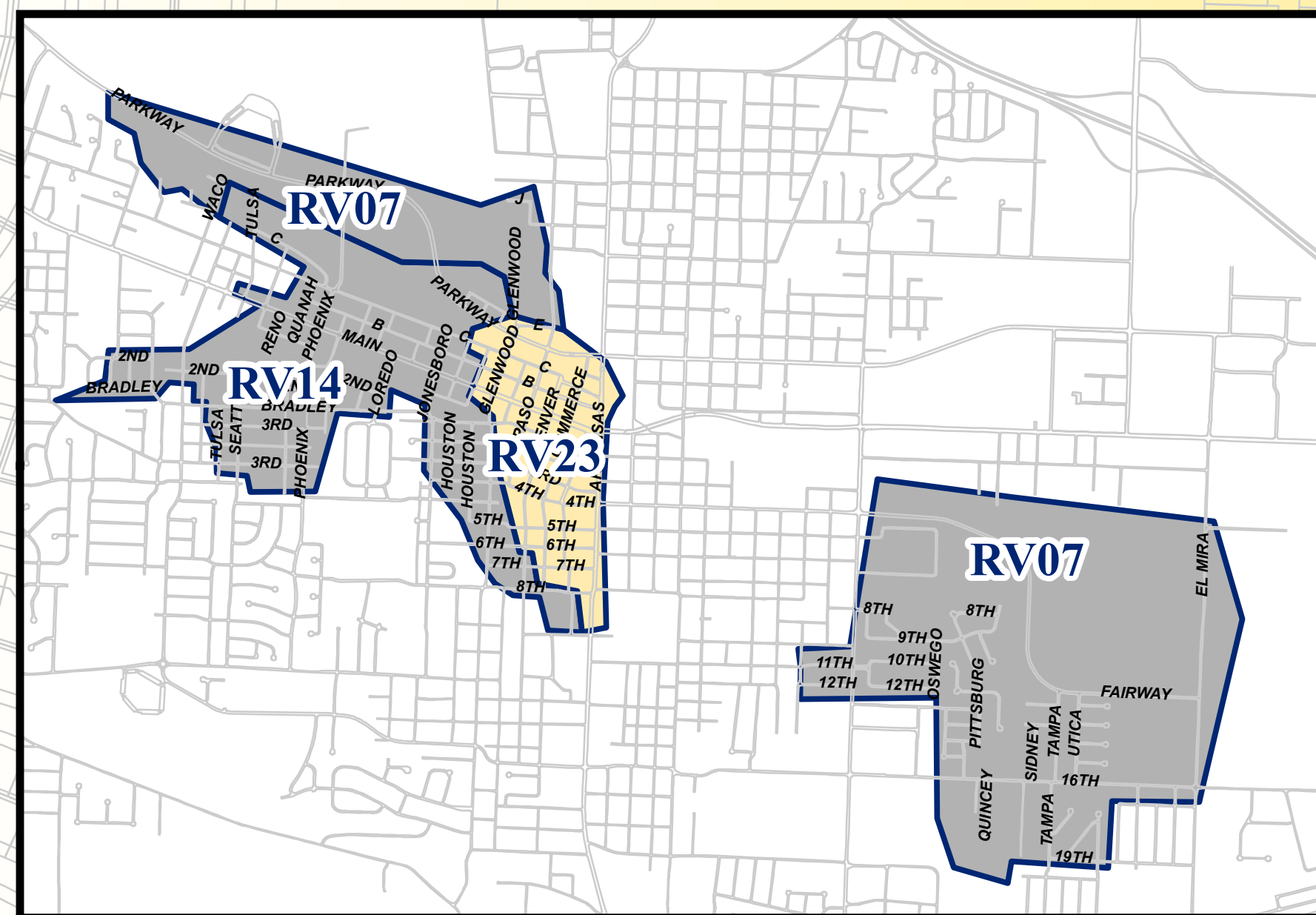
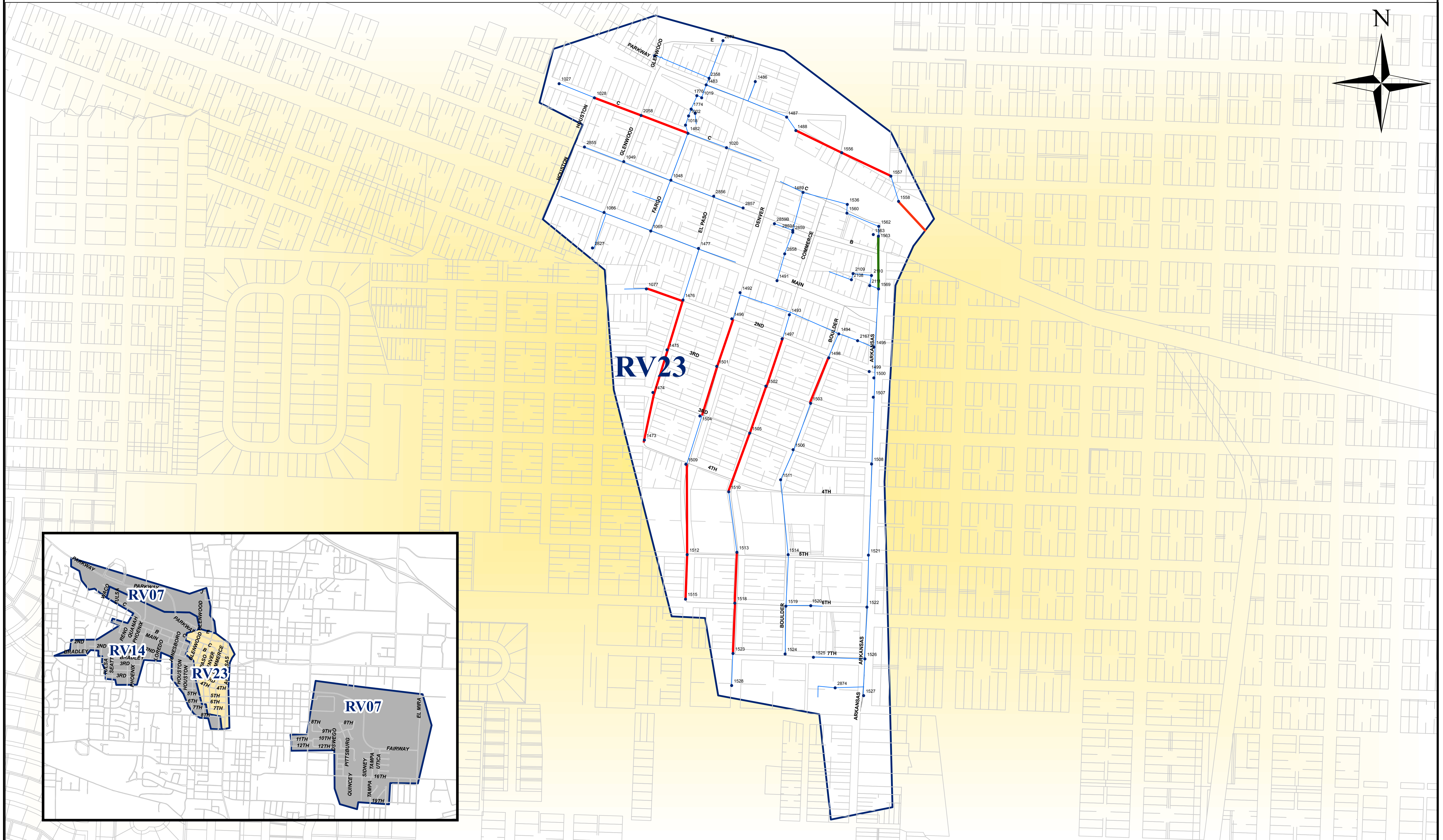
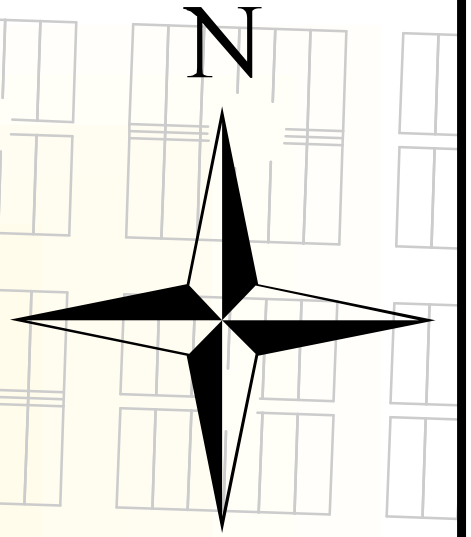
CITY OF RUSSELLVILLE, ARKANSAS



Legend

- Phase 2 Manholes
- Phase 2 Sanitary Sewer
- Streets
- Basin RV14
- Recommended Point Repair
- Recommended Line Rehabilitation

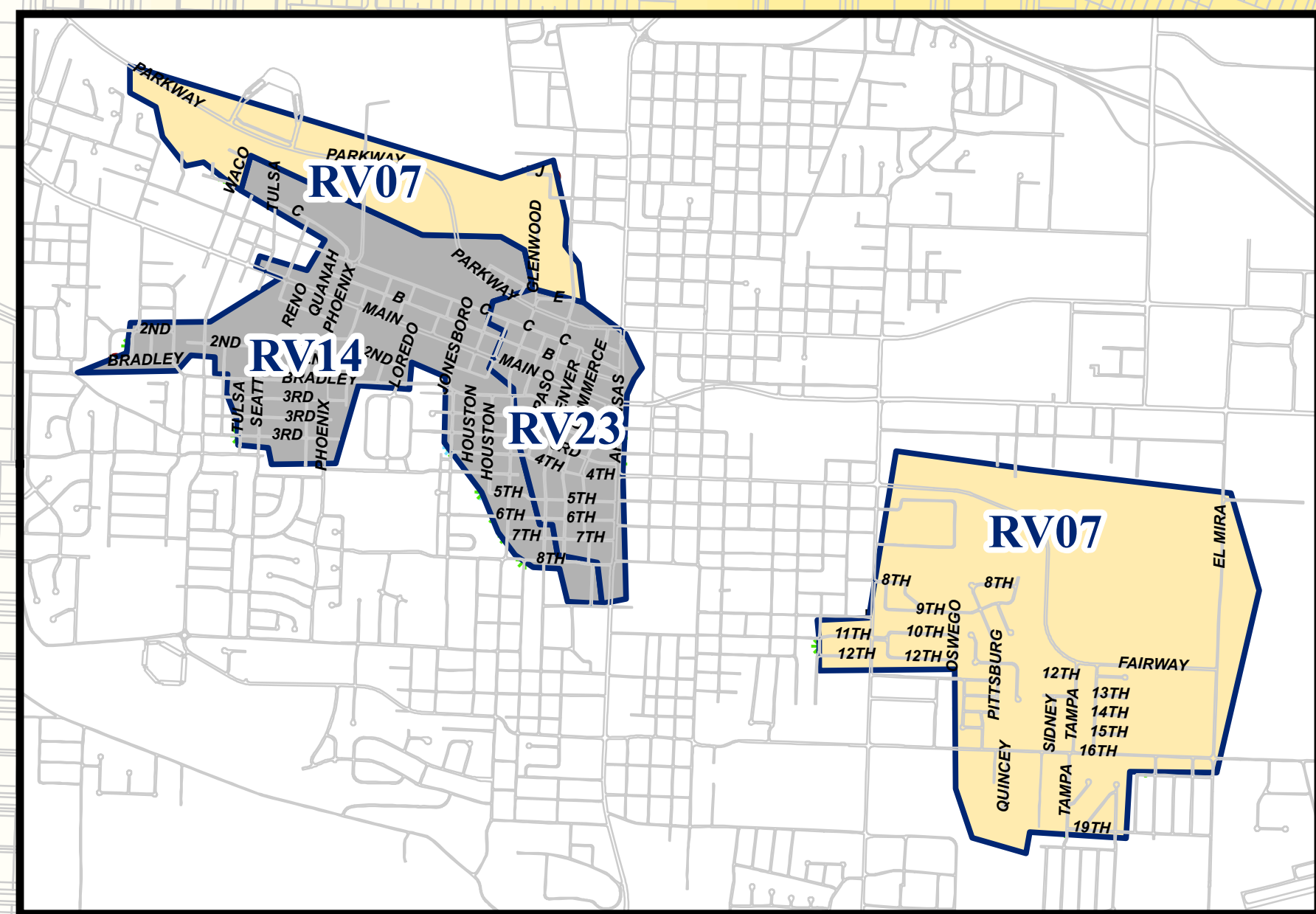
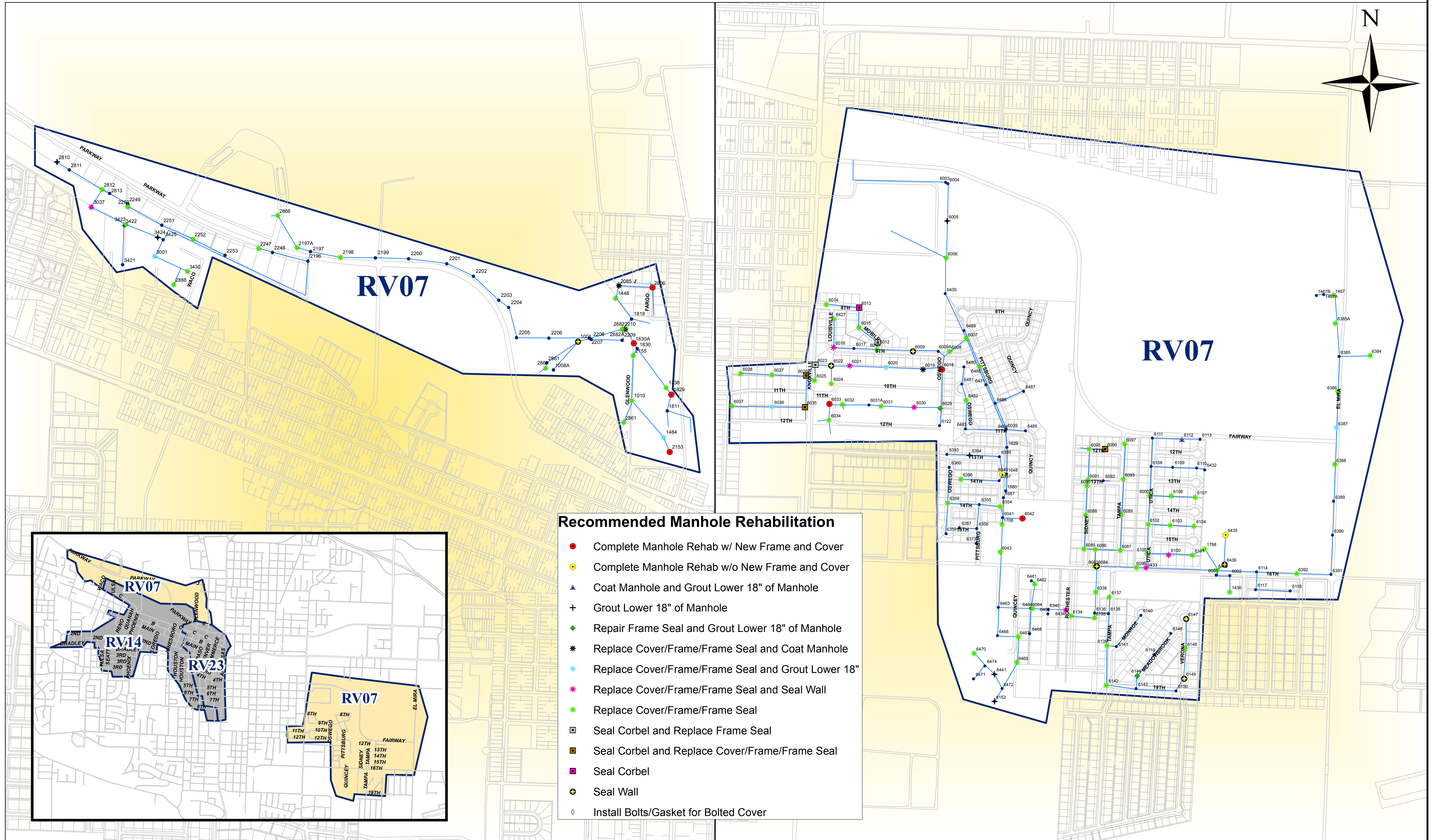
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Legend

- Phase 2 Manholes
- Recommended Point Repair
- Streets
- Phase 2 Sanitary Sewer
- Replacement
- Basin RV23

CITY OF RUSSELLVILLE, ARKANSAS



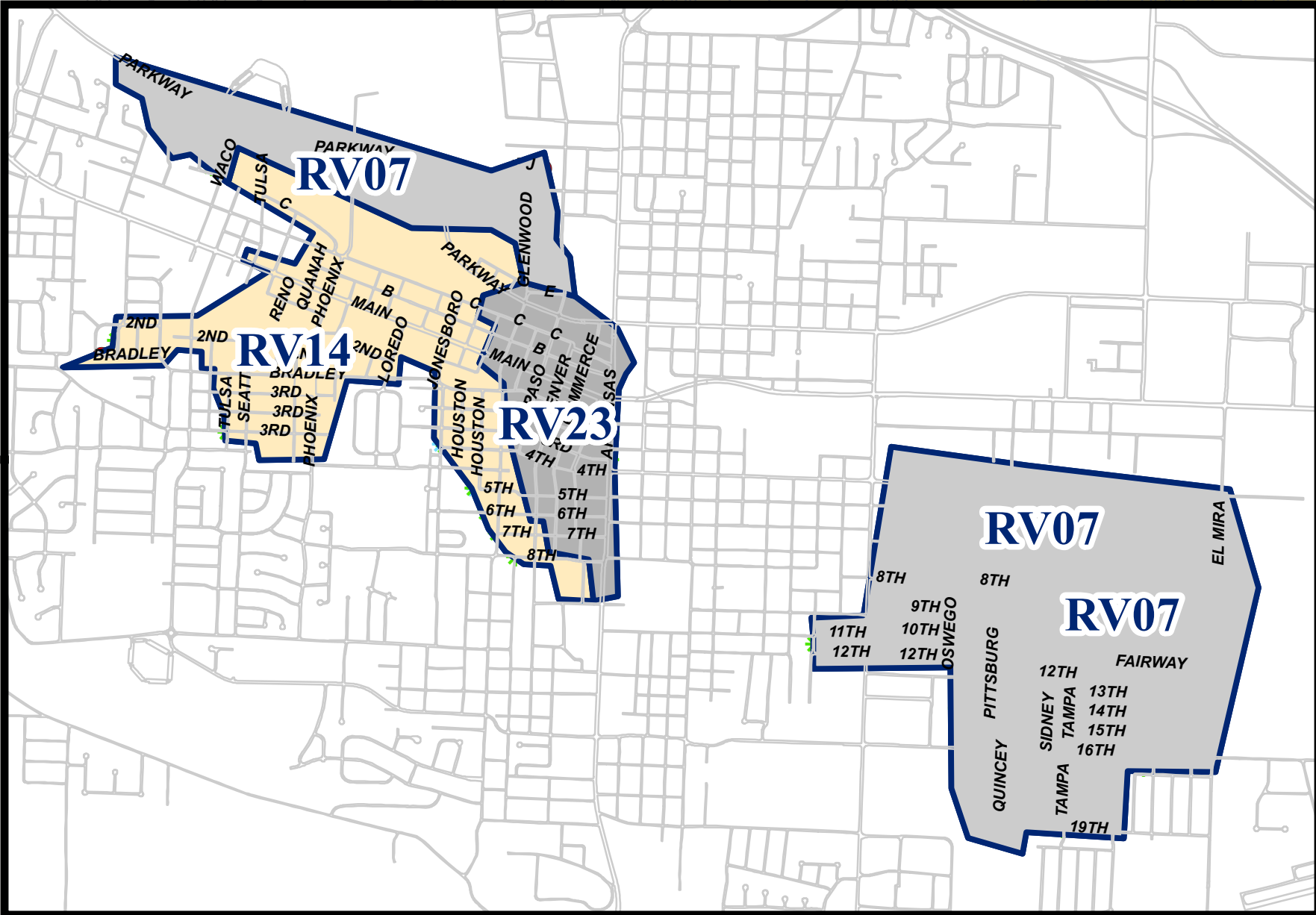
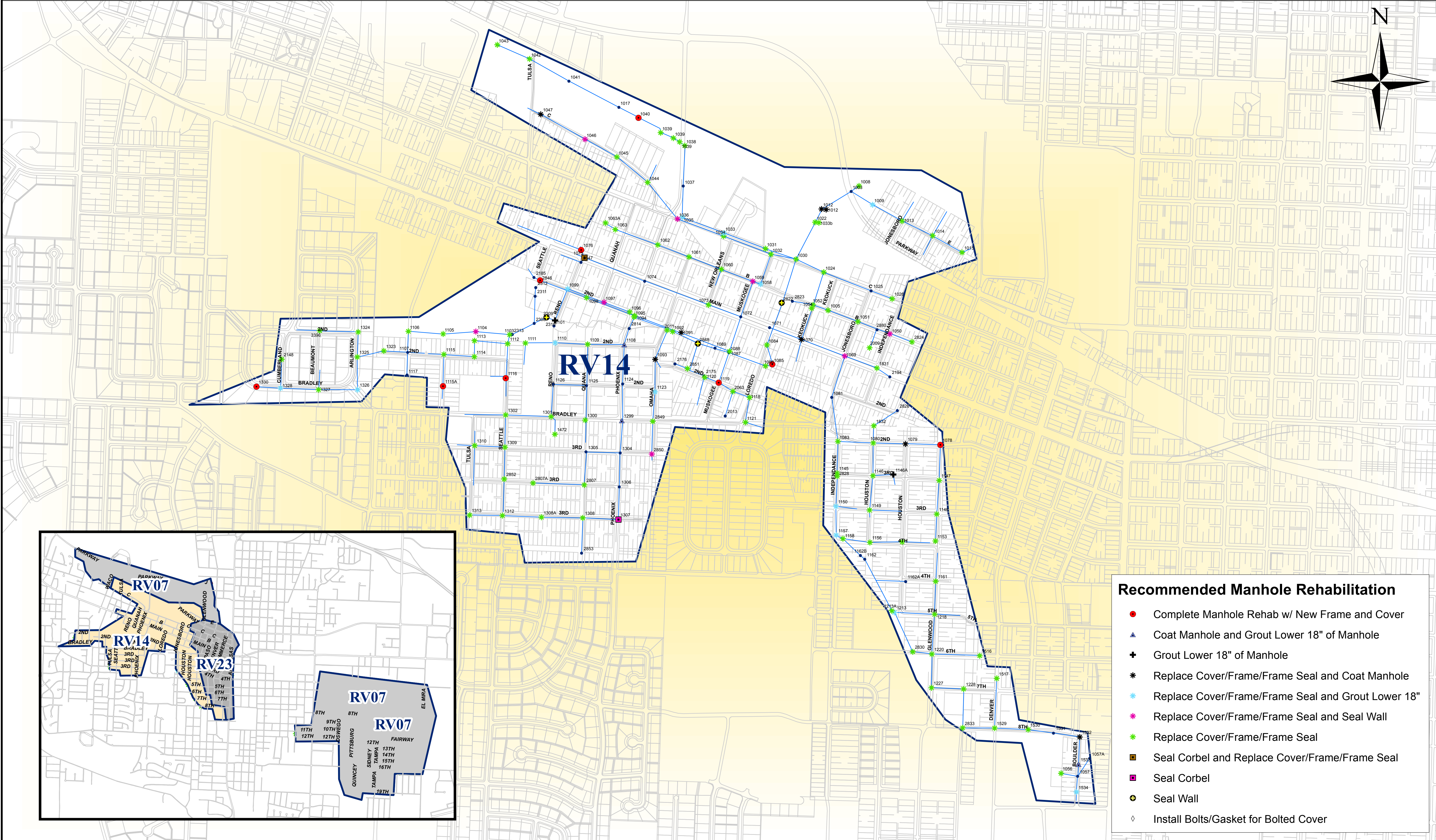
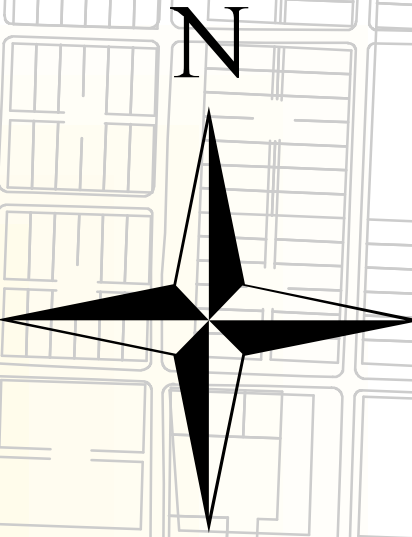
Recommended Manhole Rehabilitation

- Complete Manhole Rehab w/ New Frame and Cover
- Complete Manhole Rehab w/o New Frame and Cover
- ▲ Coat Manhole and Grout Lower 18" of Manhole
- + Grout Lower 18" of Manhole
- ◆ Repair Frame Seal and Grout Lower 18" of Manhole
- * Replace Cover/Frame/Frame Seal and Coat Manhole
- ◆ Replace Cover/Frame/Frame Seal and Grout Lower 18"
- ◆ Replace Cover/Frame/Frame Seal and Seal Wall
- ◆ Replace Cover/Frame/Frame Seal
- ▣ Seal Corbel and Replace Frame Seal
- ▣ Seal Corbel and Replace Cover/Frame/Frame Seal
- ▣ Seal Corbel
- ◆ Seal Wall
- ◇ Install Bolts/Gasket for Bolted Cover

Legend

- Phase 2 Manholes
- Streets
- Phase 2 Sanitary Sewer
- ▣ Basin RV07

CITY OF RUSSELLVILLE, ARKANSAS



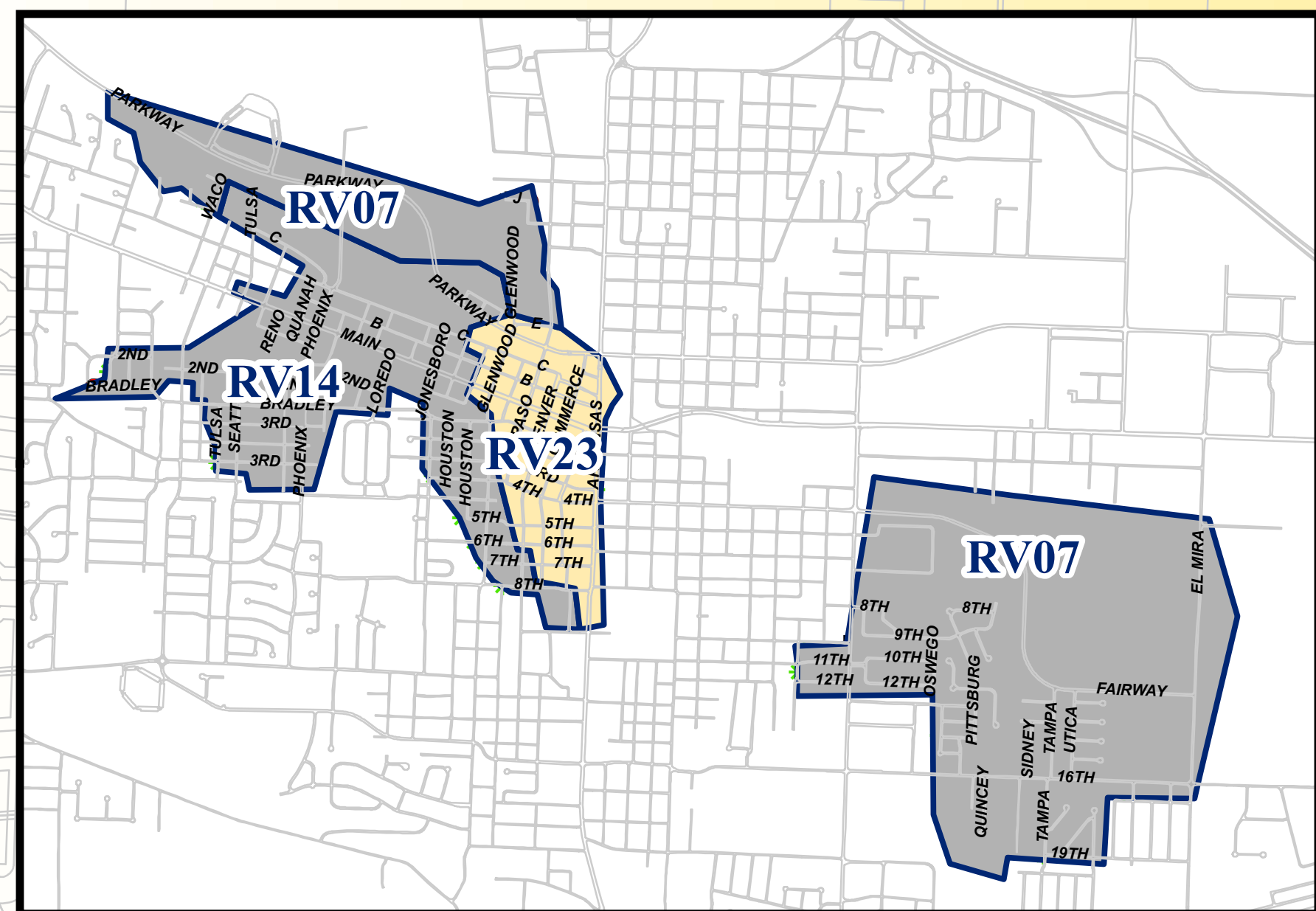
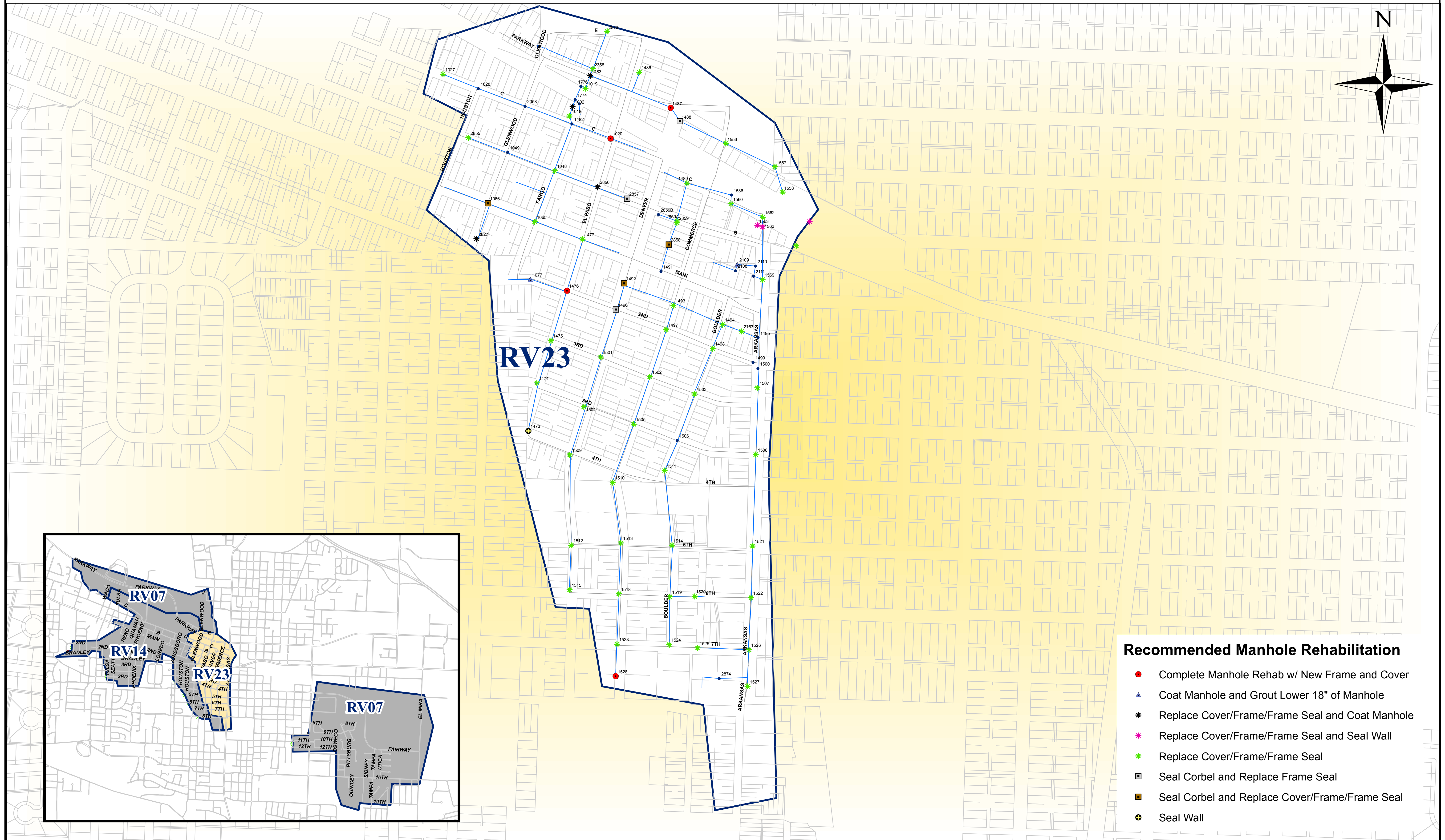
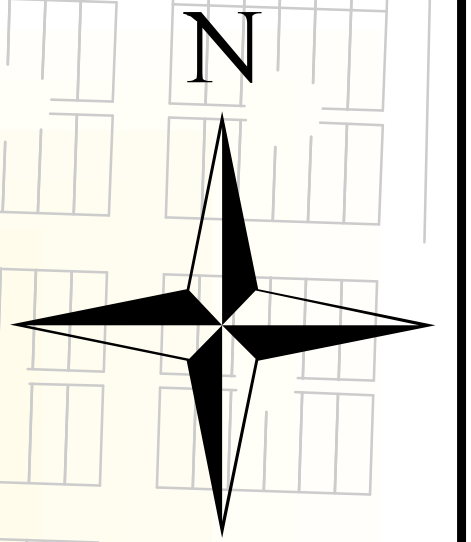
Recommended Manhole Rehabilitation

- Complete Manhole Rehab w/ New Frame and Cover
- ▲ Coat Manhole and Grout Lower 18" of Manhole
- ⊕ Grout Lower 18" of Manhole
- * Replace Cover/Frame/Frame Seal and Coat Manhole
- ⚡ Replace Cover/Frame/Frame Seal and Grout Lower 18"
- ✳ Replace Cover/Frame/Frame Seal and Seal Wall
- ✳ Replace Cover/Frame/Frame Seal
- Seal Corbel and Replace Cover/Frame/Frame Seal
- Seal Corbel
- ⊕ Seal Wall
- ◇ Install Bolts/Gasket for Bolted Cover

Legend

- Phase 2 Manholes
- Streets
- Phase 2 Sanitary Sewer
- ▭ Basin RV14

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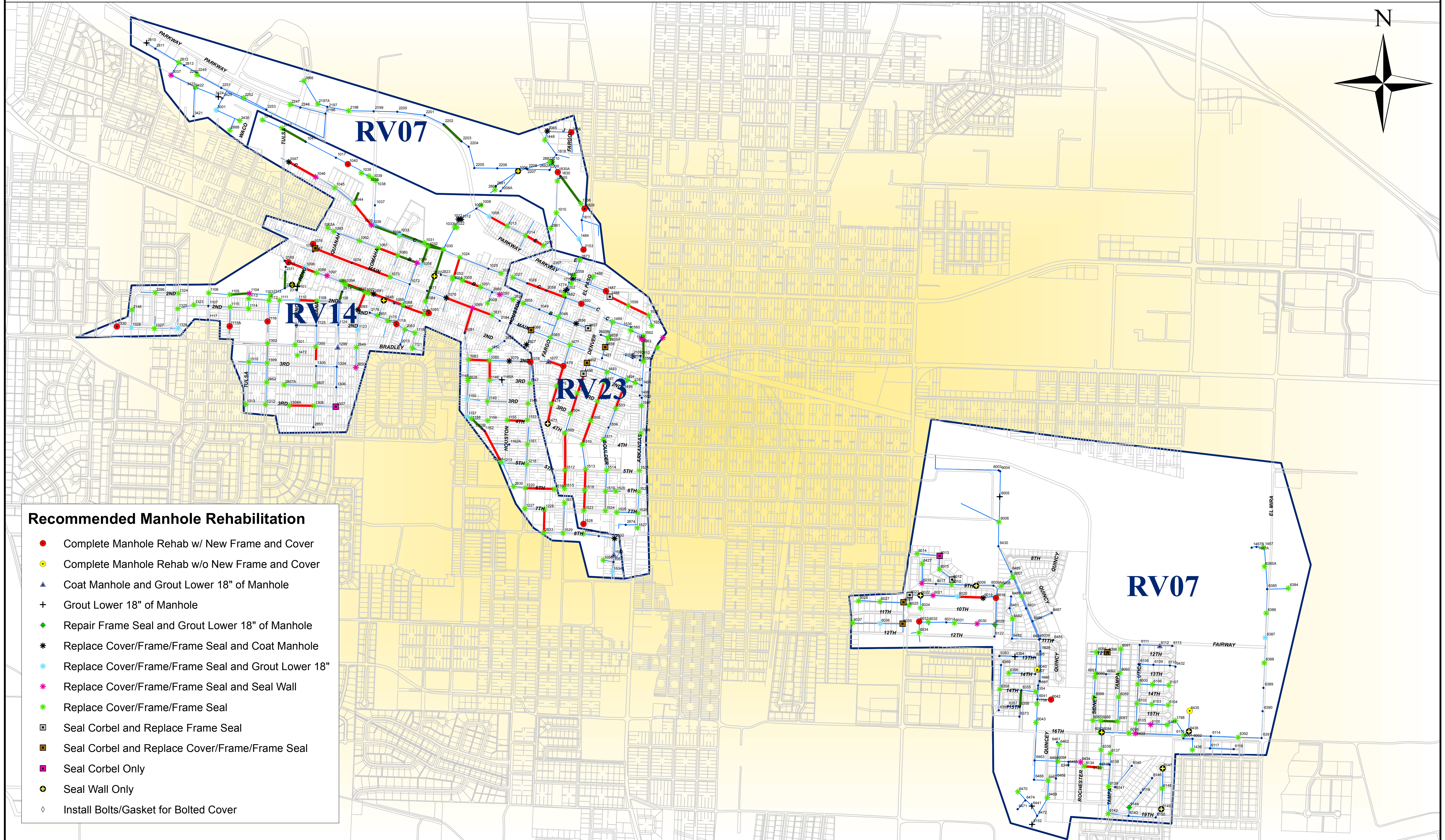
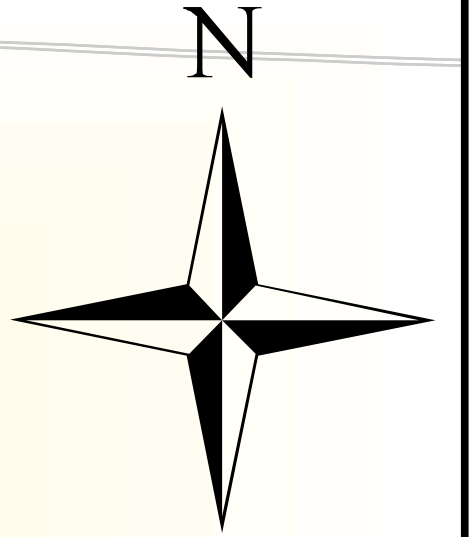
Recommended Manhole Rehabilitation

- Complete Manhole Rehab w/ New Frame and Cover
- ▲ Coat Manhole and Grout Lower 18" of Manhole
- * Replace Cover/Frame/Frame Seal and Coat Manhole
- ✱ Replace Cover/Frame/Frame Seal and Seal Wall
- ✱ Replace Cover/Frame/Frame Seal
- ▣ Seal Corbel and Replace Frame Seal
- ▣ Seal Corbel and Replace Cover/Frame/Frame Seal
- ⊕ Seal Wall

Legend

- Phase 2 Manholes
- Streets
- Phase 2 Sanitary Sewer
- ▭ Basin RV23

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Recommended Manhole Rehabilitation

- Complete Manhole Rehab w/ New Frame and Cover
- Complete Manhole Rehab w/o New Frame and Cover
- ▲ Coat Manhole and Grout Lower 18" of Manhole
- + Grout Lower 18" of Manhole
- ◆ Repair Frame Seal and Grout Lower 18" of Manhole
- * Replace Cover/Frame/Frame Seal and Coat Manhole
- ★ Replace Cover/Frame/Frame Seal and Grout Lower 18"
- ✳ Replace Cover/Frame/Frame Seal and Seal Wall
- ✳ Replace Cover/Frame/Frame Seal
- ▣ Seal Corbel and Replace Frame Seal
- ▣ Seal Corbel and Replace Cover/Frame/Frame Seal
- ▣ Seal Corbel Only
- ⊕ Seal Wall Only
- ◇ Install Bolts/Gasket for Bolted Cover

Legend

- Recommended Point Repair
- Recommended Line Rehabilitation
- Phase 2 Sanitary Sewer
- ▭ Basin Boundaries

APPENDIX A

MANHOLE INSPECTION REPORT

Manhole Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

Manhole Number	Address /Street	Structure Type	Location	Manhole Diam. (in.)	Manhole Depth (ft.)	Subj. Pond.	Cover Type	Wall Const.	Wall Condition	H ₂ S gas Corrosion	Surcharge Evidence	Infiltr. (gpd)	Inflow (gpd)
(RV07)1001	UNK GLENWOOD AVE	Manhole	Grass Esmt	45	7.1	No	Concealed	Rehab	Cracked	N/A	No	144	
(RV07)1008A	UNK N GLENWOOD AVE	N/A	Grass Esmt	48	8.3	No	Concealed	Rehab	Loose/Missing Bricks	N/A	Yes		
(RV07)1010	UNK N GLENWOOD AVE	Manhole	Grass Esmt	48	4.8	No	Concealed	Poured	Loose/Missing Bricks	N/A	Yes		144
(RV07)1436	2320 16TH ST	N/A	Grass Esmt	N/A	N/A	No	Bolted	N/A	N/A	N/A	No		720
(RV07)1448	UNK J ST	Manhole	Grass Esmt	46	19.8	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		867
(RV07)1467	UNK EL MIRA	Manhole	Paved Esmt	47	4.7	No	Pick	Poured	Loose/Missing Bricks	N/A	No		1,332
(RV07)1467A	UNK EL MIRA	Manhole	Paved Esmt	48	4.4	No	Concealed	Poured	Loose/Missing Bricks	N/A	Yes		
(RV07)1467B	UNK EL MIRA	N/A	Inaccessible	N/A	N/A	No	N/A	N/A	N/A	N/A	No		
(RV07)1484	550 N EL PASO AVE	Manhole	Grass Esmt	44	5.2	No	Pick	Rehab	Loose/Missing Bricks	N/A	No	1,037	72
(RV07)1629	1215 S PITTSBURG	Manhole	Grass Esmt	72	10.6	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)1648	1311 S PITTSBURG	Manhole	Grass Esmt	72	10.6	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)1680	1405 S PITTSBURG	Manhole	Grass Esmt	72	10.8	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)1687	1409 S PITTSBURG AVE	Manhole	Grass Esmt	72	10.6	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)1708	1501 E 16TH ST	Manhole	Grass Esmt	72	10.6	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		1,440
(RV07)1738	UNK EL PASO ST	Manhole	Grass Esmt	48	10.7	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		720
(RV07)1788	1018 16TH ST	N/A	Grass Esmt	48	3.9	No	Pick	Poured	Loose/Missing Bricks	N/A	No		72
(RV07)1811	UNK N GLENWOOD AVE	N/A	Grass Esmt	48	3.9	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)1818	UNK FARGO ST	Manhole	Grass Esmt	46	19.6	No	Concealed	Rehab	Loose/Missing Bricks	N/A	Yes		
(RV07)1829	UNK EL PASO ST	Manhole	Grass Esmt	38	6.2	No	Concealed	Rehab	Sound	N/A	No	360	1,224
(RV07)1830	UNK GLENWOOD	Manhole	Grass Esmt	33	7.4	No	Concealed	None	N/A	N/A	No		
(RV07)1830A	UNK N GLENWOOD AVE	N/A	Grass Esmt	71	7.4	No	None	Poured	Loose/Missing Bricks	N/A	No	317	1,584
(RV07)2085	615 W J ST	N/A	Paved Esmt	48	7.7	No	Pick	Brick	Sound	N/A	No	360	72
(RV07)2153	550 N EL PASO AVE	Manhole	Grass Esmt	40	4.8	No	Pick	None	N/A	N/A	Yes	317	1,080
(RV07)2155	UNK N GLENWOOD AVE	Manhole	Ditch	48	4.7	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		8,640
(RV07)2196	UNK PARKWAY DR	Manhole	Ditch	48	11.1	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		

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(RV07)2197	UNK PARKWAY DR	Manhole	Grass Esmt	48	12.8	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)2197A	2000 W PARKWAY AVE	N/A	Grass Esmt	48	10.0	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		720
(RV07)2198	UNK PARKWAY DR	Manhole	Paved Esmt	48	13.5	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		720
(RV07)2199	UNK PARKWAY DR	Manhole	Grass Esmt	48	13.9	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)2200	UNK PARKWAY DR	Manhole	Ditch	48	13.1	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)2201	UNK PARKWAY DR	Manhole	Grass Esmt	48	13.5	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)2202	UNK PARKWAY DR	Manhole	Grass Esmt	48	12.9	No	Concealed	Poured	Loose/Missing Bricks	N/A	Yes		
(RV07)2203	UNK PARKWAY DR	Manhole	Grass Esmt	48	13.2	No	Concealed	Poured	Loose/Missing Bricks	N/A	Yes		
(RV07)2204	UNK PARKWAY DR	Manhole	Grass Esmt	48	14.3	No	Concealed	Poured	Loose/Missing Bricks	N/A	Yes		
(RV07)2205	UNK PARKWAY DR	Manhole	Grass Esmt	48	15.9	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)2206	UNK N GLENWOOD AVE	Manhole	Grass Esmt	48	17.8	No	Concealed	Poured	Loose/Missing Bricks	N/A	Yes		
(RV07)2207	UNK GLENWOOD AVE	Manhole	Grass Esmt	48	17.7	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)2208	UNK N GLENWOOD AVE	Manhole	Grass Esmt	48	17.6	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)2209	UNK N GLENWOOD AVE	Manhole	Grass Esmt	48	18.8	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)2210	UNK N GLENWOOD AVE	Manhole	Grass Esmt	62	20.5	No	Pick	Poured	Loose/Missing Bricks	N/A	Yes		288
(RV07)2247	2001 W PARKWAY AVE	N/A	Ditch	48	6.0	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		173
(RV07)2248	2001 W PARKWAY DR	N/A	Grass Esmt	48	7.4	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)2249	UNK W PARKWAY DR	N/A	Grass Esmt	48	6.0	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)2250	UNK W PARKWAY DR	N/A	Grass Esmt	48	4.5	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		173
(RV07)2251	UNK W PARKWAY DR	N/A	Grass Esmt	48	4.6	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)2252	2015 W PARKWAY DR	N/A	Grass Esmt	48	5.4	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		173
(RV07)2253	2015 W PARKWAY DR	N/A	Grass Esmt	48	6.1	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)2806	920 N FARGO	N/A	Center Street	48	4.6	No	Pick	Rehab	Leaking Step/Lifting Hole	N/A	Yes	677	2,091
(RV07)2810	2505 W PARKWAY DR	N/A	Grass Esmt	48	4.7	No	Concealed	Poured	Loose/Missing Bricks	N/A	No	1,037	
(RV07)2811	2505 W PARKWAY DR	N/A	Grass Esmt	48	4.7	No	Concealed	Poured	Loose/Missing Bricks	N/A	Yes		

Manhole Inspection Report

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(RV07)2812	2415 W PARKWAY DR	N/A	Grass Esmt	48	6.9	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		720
(RV07)2813	2415 W PARKWAY DR	N/A	Grass Esmt	48	5.9	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)2860	UNK GLENWOOD AVE	Manhole	Grass Esmt	47	4.9	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		4,332
(RV07)2861	UNK N HOUSTON AVE	N/A	Grass Esmt	48	5.1	No	Pick	Poured	Loose/Missing Bricks	N/A	No		3,466
(RV07)2866	2000 W PARKWAY DR	N/A	Paved Esmt	48	9.1	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		720
(RV07)2881	UNK N GLENWOOD AVE	N/A	Grass Esmt	48	6.1	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)2882	UNK N GLENWOOD AVE	Manhole	Grass Esmt	60	8.0	No	Concealed	Poured	Loose/Missing Bricks	N/A	Yes		720
(RV07)2882A	UNK N GLENWOOD AVE	Manhole	Grass Esmt	46	9.6	No	Pick	Brick	Sound	N/A	Yes	360	2,091
(RV07)2888	401 WACO	N/A	Paved Esmt	48	4.4	Yes	Concealed	Poured	Loose/Missing Bricks	N/A	No		1,080
(RV07)3001	401 WACO	N/A	Grass Esmt	42	12.8	No	Pick	Rehab	Loose/Missing Bricks	N/A	Yes	2,880	576
(RV07)3037	UNK CUMBERLAND DR	Manhole	Grass Esmt	49	13.6	No	Pick	Rehab	Sound	N/A	No	720	72
(RV07)3421	2408 CUMBERLAND	N/A	Grass Esmt	48	5.2	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)3422	UNK N CUMBERLAND	N/A	Grass Esmt	48	7.1	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)3423	UNK CUMBERLAND DR	Manhole	Grass Esmt	49	14.4	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		576
(RV07)3424	UNK WACO ST	Manhole	Grass Esmt	48	14.7	No	Concealed	Poured	Loose/Missing Bricks	N/A	No	432	
(RV07)3425	UNK WACO ST	N/A	Not Found	N/A	N/A	No	N/A	N/A	N/A	N/A	No		
(RV07)3430	401 N WACO	N/A	Paved Esmt	48	3.7	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		720
(RV07)6000	1302 S UTICA AVE	Manhole	Grass Esmt	48	5.3	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		1,732
(RV07)6001	2320 E 16TH ST	N/A	Paved Esmt	48	6.5	No	Concealed	Rehab	Loose/Missing Bricks	N/A	Yes		
(RV07)6002	2320 E 16TH ST	N/A	Grass Esmt	48	6.7	No	Concealed	Rehab	Loose/Missing Bricks	N/A	No		
(RV07)6003	UNK E FAIRVIEW	Manhole	Grass Esmt	72	9.8	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)6004	UNK E FAIRVIEW	Manhole	Grass Esmt	72	15.6	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)6005	UNK S KNOXVILLE	Manhole	Grass Esmt	72	13.8	No	Concealed	Poured	Cracked	N/A	No	317	
(RV07)6006	UNK S KNOXVILLE	Manhole	Grass Esmt	72	N/A	No	Concealed	Poured	Cracked	N/A	No		720
(RV07)6007	UNK S PITTSBURG	Manhole	Grass Esmt	72	13.3	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		720

Manhole Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

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(RV07)6008	UNK E 9TH ST	N/A	Grass Esmt	48	11.9	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		720
(RV07)6009	1124 E 9TH ST	N/A	Grass Esmt	48	11.0	No	Concealed	Rehab	Sound	N/A	No	360	
(RV07)6009A	1129 E 9TH ST	N/A	Grass Esmt	48	8.3	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)6010	1114 E 9TH ST	N/A	Grass Esmt	48	8.7	No	Pick	Precast	Loose/Missing Bricks	N/A	No		867
(RV07)6012	807 S MOBILE AVE	N/A	Grass Esmt	48	8.0	No	Concealed	Precast	Loose/Missing Bricks	N/A	No		1,224
(RV07)6013	1201 E 8TH ST	N/A	Grass Esmt	48	5.1	No	Concealed	Precast	Loose/Missing Bricks	N/A	No		504
(RV07)6014	1103 EAST 8TH ST	N/A	Grass Esmt	48	4.9	No	Concealed	Precast	Loose/Missing Bricks	N/A	No		720
(RV07)6015	804 SOUTH MOBILE	N/A	Grass Esmt	48	5.6	No	Concealed	Rehab	Sound	N/A	No	144	720
(RV07)6016	810 S LOUISVILLE AVE	N/A	Grass Esmt	46	6.0	No	Pick	Precast	Sound	N/A	No	360	288
(RV07)6017	1107 E 9TH ST	N/A	Grass Esmt	48	7.2	No	Concealed	Precast	Loose/Missing Bricks	N/A	Yes		
(RV07)6018	909 S OSWEGO AVE	N/A	Grass Esmt	48	10.0	No	Pick	Rehab	Sound	N/A	No	360	1,836
(RV07)6019	1219 E 10TH ST	N/A	Grass Esmt	48	8.6	No	Pick	Brick	Leaking Step/Lifting Hole	N/A	No	360	1,378
(RV07)6020	1207 E 10 ST	N/A	Grass Esmt	48	8.1	No	Pick	Rehab	Loose/Missing Bricks	N/A	No	317	792
(RV07)6021	1121 E 10TH ST	N/A	Grass Esmt	48	7.7	No	Pick	Rehab	Leaking Step/Lifting Hole	N/A	No	360	72
(RV07)6022	1113 E 10 ST	N/A	Grass Esmt	46	6.7	No	Concealed	Rehab	Leaking Step/Lifting Hole	N/A	Yes	360	
(RV07)6023	1109 E 11TH	N/A	Grass Esmt	46	7.2	No	Concealed	Precast	Loose/Missing Bricks	N/A	Yes		1,224
(RV07)6024	1105 E 10 ST	N/A	Grass Esmt	48	6.1	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		4,186
(RV07)6025	1110 E 11TH	N/A	Grass Esmt	48	6.9	No	Pick	Precast	Loose/Missing Bricks	N/A	Yes		867
(RV07)6026	1008 EAST 10TH	N/A	Grass Esmt	48	N/A	No	Pick	Precast	Leaking Step/Lifting Hole	N/A	Yes	360	1,296
(RV07)6027	1000 E 10TH ST	N/A	Grass Esmt	48	5.6	No	Pick	Not Visib	N/A	N/A	Yes		72
(RV07)6028	1003 ITHACA	N/A	Grass Esmt	48	6.1	No	Pick	Not Visib	N/A	N/A	Yes		1,332
(RV07)6029	1105 S OSWEGO AVE	N/A	Grass Esmt	48	6.4	No	Concealed	Rehab	Loose/Missing Bricks	N/A	No	1,440	720
(RV07)6030	1220 E 10TH ST	N/A	Grass Esmt	48	7.1	No	Pick	Rehab	Sound	N/A	No	360	3,171
(RV07)6031	1123 E 11TH ST	N/A	Grass Esmt	49	6.7	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		72
(RV07)6031A	1119 E 12TH ST	N/A	Grass Esmt	N/A	N/A	No	Concealed	N/A	N/A	N/A	No		

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(RV07)6032	1107 E 12TH ST	N/A	Grass Esmt	48	6.7	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		792
(RV07)6033	1100 E 11TH ST	N/A	Grass Esmt	48	6.0	No	Concealed	None	Sound	N/A	No	360	1,224
(RV07)6034	1110 E 11TH ST	N/A	Grass Esmt	42	4.4	No	Pick	None	N/A	N/A	No		1,378
(RV07)6035	1010 E 11TH ST	N/A	Grass Esmt	46	5.1	No	Pick	None	N/A	N/A	Yes		2,091
(RV07)6036	1003 E 12TH ST	N/A	Grass Esmt	46	5.2	No	Pick	None	Loose/Missing Bricks	N/A	Yes	317	72
(RV07)6037	1103 S ITHACA AVE	N/A	Grass Esmt	48	3.6	No	Pick	None	N/A	N/A	No		1,371
(RV07)6039	UNK E 11TH ST	Manhole	Grass Esmt	48	9.7	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)6040	1315 S PITTSBURG AVE	N/A	Center Street	48	7.3	No	Concealed	Brick	Sound	N/A	No	288	504
(RV07)6041	1610 E 14TH PL	Manhole	Grass Esmt	72	9.3	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)6042	UNK E 16 ST	N/A	Grass Esmt	48	4.9	No	Pick	Poured	Sound	N/A	No	1,397	1,371
(RV07)6043	1501 E 16TH ST	Manhole	Grass Esmt	72	10.7	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		1,440
(RV07)6083	1806 E 16TH ST	Manhole	Grass Esmt	46	7.5	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		576
(RV07)6084	1806 E 16TH ST	Manhole	Grass Esmt	48	9.3	No	Concealed	Rehab	Sound	N/A	No	360	
(RV07)6085	1338 S SIDNEY AVE	Manhole	Grass Esmt	38	2.9	No	Pick	None	N/A	N/A	No		288
(RV07)6086	1335 S SIDNEY ST	Manhole	Grass Esmt	48	5.2	No	Pick	Rehab	Loose/Missing Bricks	N/A	Yes		2,236
(RV07)6087	1333 S TAMPA AVE	Manhole	Grass Esmt	46	8.7	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		1,732
(RV07)6088	1312 S SIDNEY AVE	Manhole	Grass Esmt	38	3.0	No	Pick	None	N/A	N/A	Yes		288
(RV07)6089	1313 S TAMPA AVE	Manhole	Grass Esmt	46	5.7	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		1,732
(RV07)6090	1300 S SIDNEY AVE	Manhole	Grass Esmt	38	3.0	No	Pick	None	N/A	N/A	No		549
(RV07)6091	1815 E 13TH ST	Manhole	Grass Esmt	38	2.7	No	Pick	None	N/A	N/A	No		867
(RV07)6092	1909 13TH	N/A	Not Found	N/A	N/A	No	N/A	N/A	N/A	N/A	No		
(RV07)6093	1213 S TAMPA AVE	Manhole	Grass Esmt	46	3.3	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		1,732
(RV07)6094	1558 E 16TH ST	Manhole	Grass Esmt	48	4.9	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)6095	1901 12TH ST	Manhole	Grass Esmt	38	2.5	No	Pick	None	N/A	N/A	No		288
(RV07)6096	1911 E 14 ST	N/A	Paved Esmt	46	4.1	No	Pick	None	N/A	N/A	No		3,174

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(RV07)6097	1101 S TAMPA AVE	Manhole	Grass Esmt	46	5.3	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		1,945
(RV07)6098	1950 E 16TH ST	Manhole	Grass Esmt	51	9.8	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		144
(RV07)6100	2107 E 16TH ST	N/A	Grass Esmt	48	7.2	No	Pick	Rehab	Leaking Step/Lifting Hole	N/A	No	360	1,732
(RV07)6101	2115 E 16TH ST	N/A	Grass Esmt	48	5.4	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		144
(RV07)6102	1402 S UTICA AVE	Manhole	Grass Esmt	48	6.3	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		1,732
(RV07)6103	2107 E 15TH ST	N/A	Grass Esmt	48	7.3	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		864
(RV07)6104	2112 E 14TH ST	N/A	Grass Esmt	48	6.6	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		867
(RV07)6105	1504 S UTICA AVE	Manhole	Grass Esmt	48	8.0	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		864
(RV07)6106	2105 E 14TH ST	N/A	Grass Esmt	44	4.0	No	Concealed	None	N/A	N/A	No		720
(RV07)6107	2113 E 14TH ST	N/A	Grass Esmt	46	4.0	No	Concealed	None	N/A	N/A	No		720
(RV07)6108	1204 S UTICA AVE	Manhole	Grass Esmt	44	3.2	No	Concealed	None	N/A	N/A	Yes		
(RV07)6109	2105 E 13TH	N/A	Grass Esmt	44	3.7	No	Concealed	None	N/A	N/A	No		
(RV07)6110	2112 E 12TH ST	N/A	Grass Esmt	40	3.6	No	Concealed	None	N/A	N/A	No		
(RV07)6111	1110 S UTICA AVE	Manhole	Grass Esmt	46	2.8	No	Concealed	None	N/A	N/A	No		
(RV07)6112	2109 E 12TH ST	N/A	Grass Esmt	46	2.6	No	Concealed	None	N/A	N/A	Yes		504
(RV07)6113	2113 E 12TH ST	N/A	Grass Esmt	48	3.0	No	Concealed	None	N/A	N/A	No		
(RV07)6114	2600 16TH ST	Manhole	Paved Esmt	47	8.8	No	Concealed	Rehab	Loose/Missing Bricks	N/A	No		
(RV07)6115	2320 16TH ST	Manhole	Paved Esmt	47	8.1	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		1,781
(RV07)6117	2505 E 17TH ST	N/A	Grass Esmt	48	4.1	No	Concealed	Poured	Loose/Missing Bricks	N/A	Yes		
(RV07)6118	2609 E 17TH ST	N/A	Grass Esmt	48	5.0	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)6119	1820 MEADOWBROOK	N/A	Grass Esmt	48	5.8	No	Concealed	Rehab	Loose/Missing Bricks	N/A	No		
(RV07)6122	1203 S OSWEGO AVE	N/A	Grass Esmt	48	5.9	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)6134	1865 S ROCHESTER	Manhole	Grass Esmt	48	5.9	No	Pick	None	N/A	N/A	No		792
(RV07)6135	1704 S TAMPA ST	Manhole	Grass Esmt	48	13.9	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		1,587
(RV07)6136	1704 S TAMPA ST	Manhole	Grass Esmt	48	12.7	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		

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(RV07)6137	1700 S TAMPA AVE	N/A	Grass Esmt	48	5.3	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		720
(RV07)6138	1710 TAMPA	N/A	Grass Esmt	48	14.5	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)6139	1804 S TAMPA AV.	N/A	Grass Esmt	47	10.4	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		720
(RV07)6140	#9 MONROE CT	N/A	Center Street	48	5.8	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)6141	1807 TAMPA	N/A	Center Street	48	6.0	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)6142	1908 S TAMPA ST	N/A	Paved Esmt	48	7.2	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		720
(RV07)6143	2012 E 19TH ST	N/A	Grass Esmt	48	7.7	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)6144	1832 MEADOWBROOK LN	N/A	Grass Esmt	48	7.0	No	Concealed	Poured	Loose/Missing Bricks	N/A	No	317	720
(RV07)6146	1804 MEADOWBROOK	N/A	Grass Esmt	48	5.6	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)6147	1705 S VERONA AVE	N/A	Center Street	48	4.9	No	Concealed	Poured	Sound	N/A	No	360	
(RV07)6148	1805 S VERONA AVE	N/A	Grass Esmt	48	5.6	No	Concealed	Poured	Leaking Step/Lifting Hole	N/A	No	360	720
(RV07)6149	1821 S VERONA AVE	N/A	Grass Esmt	48	3.9	No	Concealed	Poured	Leaking Step/Lifting Hole	N/A	No	677	
(RV07)6150	2116 E 19TH ST	N/A	Grass Esmt	48	4.1	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)6152	1500 E 16TH ST	Manhole	Grass Esmt	72	15.3	No	Concealed	Poured	Loose/Missing Bricks	N/A	No	720	
(RV07)6338	1700 S TAMPA ST	Manhole	Grass Esmt	49	10.9	No	Pick	Rehab	Loose/Missing Bricks	N/A	Yes		245
(RV07)6340	1558 E 16TH ST	Manhole	Grass Esmt	48	3.4	No	Concealed	None	N/A	N/A	No		
(RV07)6354	1610 E 14TH PL	N/A	Center Street	48	5.0	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		720
(RV07)6355	1531 E 14TH PL	N/A	Grass Esmt	48	5.8	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)6356	1521 E 15TH ST	N/A	Grass Esmt	48	4.8	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)6357	1523 E 15TH ST	N/A	Grass Esmt	48	3.0	No	Concealed	None	N/A	N/A	No		
(RV07)6358	1412 S OSWEGO PL	N/A	Paved Esmt	48	3.7	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		720
(RV07)6359	1502 E 15TH ST	N/A	Grass Esmt	48	2.8	No	Concealed	None	N/A	N/A	No		
(RV07)6360	1306 S OSWEGO PL	N/A	Grass Esmt	48	3.7	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)6373	UNK S PITTSBURG AVE	N/A	Grass Esmt	N/A	N/A	No	Concealed	N/A	N/A	N/A	No		
(RV07)6384	915 S ELMIRA ST	Manhole	Grass Esmt	36	6.4	No	Pick	Poured	Loose/Missing Bricks	N/A	No		867

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(RV07)6385	915 S EL MIRA AVE	Manhole	Gutter	40	8.3	No	Concealed	Rehab	Loose/Missing Bricks	N/A	Yes		
(RV07)6385A	UNK SOUTH ELMIRA AV	N/A	Grass Esmt	48	6.0	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		867
(RV07)6386	915 S EL MIRA AVE	Manhole	Gutter	42	8.1	Yes	Concealed	Rehab	Loose/Missing Bricks	N/A	Yes		1,080
(RV07)6387	UNK S EL MIRA AVE	Manhole	Gutter	45	8.2	No	Concealed	Rehab	Loose/Missing Bricks	N/A	Yes	288	173
(RV07)6388	1200 ELMIRA AVE	Manhole	Paved Esmt	48	N/A	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		3,173
(RV07)6389	1310 S EL MIRA ST	Manhole	Gutter	47	8.6	No	Concealed	Rehab	Loose/Missing Bricks	N/A	Yes		
(RV07)6390	1415 EL MIRA ST	Manhole	Gutter	48	8.2	No	Concealed	Rehab	Loose/Missing Bricks	N/A	No		
(RV07)6391	1600 ELMIRA AVE	N/A	Inaccessible	N/A	N/A	No	N/A	N/A	N/A	N/A	No		
(RV07)6392	2700 E 16TH ST	Manhole	Grass Esmt	47	9.7	No	Pick	Rehab	Loose/Missing Bricks	N/A	Yes		1,008
(RV07)6393	1517 E 13TH ST	N/A	Grass Esmt	48	N/A	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)6394	1525 E 13TH ST	N/A	Grass Esmt	48	5.6	No	Concealed	Poured	Loose/Missing Bricks	N/A	No	317	
(RV07)6395	1539 E 13TH ST	N/A	Grass Esmt	48	5.0	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)6396	1519 E 14TH ST	N/A	Grass Esmt	48	5.7	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		720
(RV07)6397	1401 S PITTSBURG	N/A	Grass Esmt	48	7.0	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)6427	803 S LOUISVILLE AVE	N/A	Grass Esmt	48	5.6	No	Concealed	Precast	Loose/Missing Bricks	N/A	No		720
(RV07)6430	UNK S PITTSBURG	Manhole	Grass Esmt	72	13.3	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)6431	UNK S PITTSBURG	Manhole	Grass Esmt	72	10.7	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)6432	1018 E 16TH ST	N/A	Grass Esmt	48	3.7	No	Concealed	None	N/A	N/A	No		
(RV07)6433	1506 S UTICA AVE	Manhole	Gutter	45	8.4	No	Pick	Rehab	Sound	N/A	No	360	2,123
(RV07)6434	1700 S ROCHESTER AVE	Manhole	Grass Esmt	48	4.8	No	Pick	Poured	Leaking Step/Lifting Hole	N/A	No	360	72
(RV07)6435	1018 E 16 ST	N/A	Grass Esmt	48	6.1	No	Concealed	Rehab	Leaking Step/Lifting Hole	N/A	Yes	1,397	504
(RV07)6436	1018 E 16TH ST	N/A	Grass Esmt	48	10.4	No	Concealed	Poured	Leaking Step/Lifting Hole	N/A	No	677	
(RV07)6441	1600 E 16TH 16 ST	N/A	Grass Esmt	48	6.7	No	Concealed	Poured	Cracked	N/A	No	1,037	
(RV07)6461	1616 E 16TH ST	N/A	Grass Esmt	46	3.7	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)6462	1616 16TH ST	N/A	Grass Esmt	48	5.7	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		720

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(RV07)6463	1402 E 16TH ST	Manhole	Grass Esmt	72	11.9	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)6464	1558 E 16TH ST	Manhole	Grass Esmt	44	4.6	No	Pick	None	N/A	N/A	No		867
(RV07)6465	1616 16TH ST	N/A	Grass Esmt	30	1.9	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)6466	1404 E 16TH ST	Manhole	Grass Esmt	72	N/A	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)6467	1500 E 16TH	Manhole	Grass Esmt	60	11.6	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		720
(RV07)6468	1616 E 16 ST	N/A	Grass Esmt	24	2.1	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)6469	1500 QUINCY	Manhole	Grass Esmt	60	10.8	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		720
(RV07)6470	1616 E 16 ST	N/A	Grass Esmt	48	4.6	Yes	Concealed	Poured	Loose/Missing Bricks	N/A	No		1,080
(RV07)6471	1600 E 16 ST	N/A	Grass Esmt	48	5.2	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)6472	1500 E 16TH	Manhole	Grass Esmt	72	11.9	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)6474	1600 E 16 ST	N/A	Grass Esmt	48	5.1	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)6480	900 S PITTSBURGH	N/A	Grass Esmt	44	3.5	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)6481	1530 OSWEGO	N/A	Grass Esmt	48	5.8	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)6482	1527 OSWEGO	N/A	Grass Esmt	48	5.7	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		720
(RV07)6483	1519 OSWEGO	N/A	Center Street	48	6.0	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)6484	UNK S PITTSBURG	Manhole	Gutter	72	10.2	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)6485	UNK E 11TH ST	N/A	Grass Esmt	48	7.5	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)6486	1100 S PITTSBURG	Manhole	Grass Esmt	48	8.4	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)6487	1101 PITTSBURG	N/A	Grass Esmt	48	5.4	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV07)6488	908 PITTSBURG	N/A	Grass Esmt	48	9.1	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		720
(RV07)6489	UNK S PITTSBURG	N/A	Grass Esmt	48	9.0	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		

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Totals for Basin RV07										23,688	122,850	
Total Manholes		221	Percent:									
Manholes Inspected		217	Inspected		98.19%							
Manholes Not Inspected		4	Not Inspected		1.81%							
Manholes Buried		0	Buried		0.00%							
Manholes Not Found		2	Not Found		0.90%							
Manholes Inaccessible		2	Inaccessible		0.90%							
Location Not Specified		0										
Evidence of Surcharge		37	Surcharge		16.74%							
Subject to Ponding		3	Ponding		1.36%							
Subject to Sheeting		70	Sheeting		31.67%							

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(RV14)1003	UNK W PARKWAY DR	Manhole	Center Street	48	11.6	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV14)1005	1017 W B ST	N/A	Center Street	30	4.4	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		288
(RV14)1008	UNK W PARKWAY	Manhole	Grass Esmt	48	7.3	Yes	Pick	Rehab	Loose/Missing Bricks	N/A	Yes		1,226
(RV14)1009	1020 W E ST	Manhole	Grass Esmt	46	7.5	No	Pick	Rehab	Loose/Missing Bricks	N/A	No	1,037	1,008
(RV14)1012	UNK W PARKWAY DR	N/A	Grass Esmt	50	7.9	No	Pick	Brick	Sound	N/A	Yes	1,714	576
(RV14)1013	1010 W E ST	N/A	Center Street	39	8.4	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		288
(RV14)1014	900 W E ST	N/A	Center Street	38	8.1	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		288
(RV14)1015	500 N HOUSTON AVE	N/A	Center Street	40	4.5	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		288
(RV14)1017	1800 W C PLACE	N/A	Not Found	N/A	N/A	No	N/A	N/A	N/A	N/A	No		
(RV14)1022	UNK W C ST	Manhole	Grass Esmt	48	10.6	No	Pick	Rehab	Loose/Missing Bricks	N/A	Yes		245
(RV14)1024	1100 W C ST	Manhole	Center Street	34	5.4	No	Pick	Poured	Loose/Missing Bricks	N/A	Yes		1,008
(RV14)1025	912 W C ST	N/A	Center Street	29	3.5	No	Concealed	None	N/A	N/A	No		
(RV14)1026	902 W C ST	N/A	Center Street	30	3.0	No	Pick	None	N/A	N/A	No		288
(RV14)1030	1200 W C ST	Manhole	Grass Esmt	46	9.7	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		792
(RV14)1031	1301 W C ST	Manhole	Grass Esmt	41	8.6	No	Concealed	Rehab	Loose/Missing Bricks	N/A	Yes		720
(RV14)1032	1301 W C ST	Manhole	Center Street	40	6.0	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		288
(RV14)1033	1401 W C ST	Manhole	Grass Esmt	48	8.9	No	Pick	Rehab	Loose/Missing Bricks	N/A	No	1,440	288
(RV14)1033b	1100 W C ST.	Manhole	Ditch	50	10.5	No	Pick	Poured	Loose/Missing Bricks	N/A	No		7,272
(RV14)1034	1411 W C ST	Manhole	Center Street	39	5.2	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		288
(RV14)1035	302 N PHOENIX AVE	Manhole	Grass Esmt	40	11.2	No	Pick	Rehab	Loose/Missing Bricks	N/A	Yes	1,037	1,008
(RV14)1036	1500 W C ST	Manhole	Center Street	39	6.7	No	Pick	Rehab	Sound	N/A	No	1,397	1,008
(RV14)1037	400 N PHOENIX AVE	Manhole	Paved Esmt	48	14.2	No	Concealed	Rehab	Loose/Missing Bricks	N/A	No		
(RV14)1038	450 N PHOENIX AVE	Manhole	Paved Esmt	48	13.6	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		1,008
(RV14)1039	UNK PHOENIX	N/A	Grass Esmt	48	4.7	No	Concealed	Not Visib	N/A	N/A	Yes		720
(RV14)1040	450 PHOENIX AVE	Manhole	Grass Esmt	48	8.9	No	Pick	Rehab	Sound	N/A	Yes	360	1,512

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(RV14)1041	UNK W C ST	Manhole	Grass Esmt	48	13.4	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV14)1042	428 N TULSA	Manhole	Grass Esmt	46	11.9	No	Pick	Rehab	Loose/Missing Bricks	N/A	Yes		288
(RV14)1043	421 N TULSA	Manhole	Grass Esmt	44	5.3	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		792
(RV14)1044	1708 W C PL	Manhole	Center Street	41	10.5	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		288
(RV14)1045	1720 W C PL	Manhole	Center Street	41	8.3	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		1,008
(RV14)1046	1800 W C PL	Manhole	Center Street	41	7.9	No	Pick	Rehab	Sound	N/A	No	144	461
(RV14)1047	1800 W C PL	N/A	Center Street	44	4.8	No	Pick	Brick	Sound	N/A	No	360	288
(RV14)1050	900 W B ST	N/A	Center Street	30	3.3	Yes	Pick	Rehab	Sound	N/A	No	360	5,691
(RV14)1051	915 W B ST	N/A	Center Street	31	4.0	No	Concealed	None	N/A	N/A	No		720
(RV14)1052	1000 W B ST	Manhole	Center Street	46	8.8	Yes	Concealed	Rehab	Loose/Missing Bricks	N/A	No		720
(RV14)1054	100 N KEOKUCK AVE	Manhole	Gutter	42	4.8	No	Concealed	Rehab	Loose/Missing Bricks	N/A	No		7,200
(RV14)1056	808 S BOULDER	N/A	Grass Esmt	48	2.9	No	Concealed	Precast	Loose/Missing Bricks	N/A	Yes		720
(RV14)1057	808 S BOULDER AVE	N/A	Center Street	48	3.6	No	Concealed	Precast	Loose/Missing Bricks	N/A	No		
(RV14)1057A	818 S ARKANSAS	N/A	Grass Esmt	29	6.4	No	Concealed	Not Visib	N/A	N/A	No		
(RV14)1058	1300 W B ST	Manhole	Center Street	37	5.6	No	Pick	Rehab	Loose/Missing Bricks	N/A	No	1,037	2,448
(RV14)1059	1302 W B ST	Manhole	Center Street	37	6.0	No	Pick	Rehab	Sound	N/A	No	1,397	288
(RV14)1060	1400 W B ST	N/A	Center Street	40	5.8	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		288
(RV14)1061	1412 W B ST	N/A	Center Street	48	5.4	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		288
(RV14)1062	201 N PHOENIX AVE	N/A	Center Street	40	6.7	No	Pick	Rehab	Loose/Missing Bricks	N/A	Yes		72
(RV14)1063	1700 W B ST	N/A	Center Street	48	8.6	No	Pick	Rehab	Loose/Missing Bricks	N/A	Yes		288
(RV14)1063A	1808 W MAIN ST	N/A	Paved Esmt	48	11.6	No	Concealed	Precast	Loose/Missing Bricks	N/A	No		720
(RV14)1069	914 W MAIN ST	Manhole	Center Street	39	8.2	No	Pick	Rehab	Sound	N/A	No	360	1,008
(RV14)1070	1022 W MAIN ST	Manhole	Center Street	41	6.2	Yes	Pick	Brick	Sound	N/A	No	677	16,500
(RV14)1071	1200 W MAIN ST	N/A	Not Found	N/A	N/A	No	N/A	N/A	N/A	N/A	No		
(RV14)1072	1200 W MAIN ST	Manhole	Center Street	43	7.9	No	Concealed	Rehab	Loose/Missing Bricks	N/A	No		

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(RV14)1073	1407 W MAIN ST	N/A	Center Street	39	5.3	Yes	Pick	Rehab	Loose/Missing Bricks	N/A	No		867
(RV14)1074	1512 W MAIN	N/A	Inaccessible	N/A	N/A	No	N/A	N/A	N/A	N/A	No		
(RV14)1075	1713 W MAIN ST	N/A	Center Street	35	3.6	No	Pick	None	N/A	N/A	No		1,800
(RV14)1076	1808 W MAIN	N/A	Paved Esmt	30	3.7	No	Concealed	None	N/A	N/A	Yes	317	1,224
(RV14)1078	UNK W 2ND ST	N/A	Center Street	35	3.6	No	Concealed	None	N/A	N/A	No	317	1,224
(RV14)1079	805 W 2ND ST	N/A	Center Street	28	4.3	No	Pick	Brick	Sound	N/A	No	360	288
(RV14)1080	814 W 2ND ST	N/A	Center Street	29	3.9	Yes	Concealed	None	N/A	N/A	No		3,888
(RV14)1081	100 S JONESBORO AVE	Manhole	Center Street	29	3.2	No	Concealed	None	N/A	N/A	No		
(RV14)1083	224 S INDEPENDENCE AV	Manhole	Center Street	32	4.4	No	Pick	None	N/A	N/A	No		288
(RV14)1084	100 S LOREDO AVE	Manhole	Center Street	48	10.4	No	Pick	Rehab	Loose/Missing Bricks	N/A	Yes		288
(RV14)1085	1201 W MAIN ST	Manhole	Grass Esmt	45	9.8	No	Pick	Rehab	Sound	N/A	Yes	360	2,232
(RV14)1086	100 S LAREDO AVE	Manhole	Paved Esmt	50	7.8	No	Pick	Rehab	Loose/Missing Bricks	N/A	Yes		288
(RV14)1087	1200 W 2ND ST	Manhole	Center Street	41	7.2	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		288
(RV14)1088	1200 W 2ND ST	Manhole	Paved Esmt	48	7.7	No	Concealed	Rehab	Loose/Missing Bricks	N/A	Yes		
(RV14)1089	UNK 2ND	N/A	Not Found	N/A	N/A	No	N/A	N/A	N/A	N/A	No		
(RV14)1091	1400 W 2ND ST	N/A	Grass Esmt	40	5.6	No	Pick	Brick	Sound	N/A	No	360	576
(RV14)1092	UNK OMAHA	Manhole	Grass Esmt	48	7.5	No	Pick	Poured	Loose/Missing Bricks	N/A	Yes		288
(RV14)1093	212 S OMAHA AVE	N/A	Center Street	48	4.0	Yes	Pick	Brick	Sound	N/A	No	360	15,852
(RV14)1094	1601 W 2ND ST	N/A	Paved Esmt	48	8.2	Yes	Pick	Rehab	Loose/Missing Bricks	N/A	No		8,067
(RV14)1095	200 S PHOENIX AVE	Manhole	Paved Esmt	46	12.5	No	Concealed	Rehab	Loose/Missing Bricks	N/A	No		720
(RV14)1096	1600 W 2ND ST	Manhole	Center Street	46	12.0	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		1,008
(RV14)1097	1603 W 2ND ST	Manhole	Center Street	46	14.4	No	Pick	Rehab	Sound	N/A	Yes	144	288
(RV14)1098	1703 W 2ND ST	N/A	Center Street	41	5.3	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		288
(RV14)1099	1800 W 2ND ST	Manhole	Center Street	46	16.0	No	Pick	Rehab	Loose/Missing Bricks	N/A	No	1,037	288
(RV14)1101	102 S RENO AVE	N/A	Not Found	N/A	N/A	No	N/A	N/A	N/A	N/A	No		

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(RV14)1103	1900 S VANCOUVER	Manhole	Grass Esmt	47	10.2	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		792
(RV14)1104	1902 S VANCOUVER	Manhole	Grass Esmt	47	11.0	No	Pick	Rehab	Sound	N/A	No	360	72
(RV14)1105	UNK S VANCOUVER	Manhole	Grass Esmt	46	13.8	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		288
(RV14)1106	150 S VANCOUVER	Manhole	Center Street	44	16.6	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		288
(RV14)1107	2218 W 2ND PL	Manhole	Center Street	44	14.6	No	Concealed	Rehab	Loose/Missing Bricks	N/A	No		
(RV14)1108	210 S PHOENIX AVE	N/A	Center Street	40	4.3	No	Concealed	Brick	Sound	N/A	No	360	
(RV14)1109	1700 W 2ND PL	N/A	Center Street	42	3.4	No	Pick	Poured	Loose/Missing Bricks	N/A	No		1,008
(RV14)1110	200 W 2ND PL	N/A	Paved Esmt	39	3.3	No	Pick	Rehab	Loose/Missing Bricks	N/A	No	1,037	288
(RV14)1111	1900 W 2ND	N/A	Grass Esmt	35	2.6	No	Pick	Block	Cracked	N/A	Yes		576
(RV14)1112	1900 W 2ND	N/A	Grass Esmt	33	4.4	No	Pick	Rehab	Loose/Missing Bricks	N/A	Yes		72
(RV14)1113	2010 W 2ND	N/A	Grass Esmt	39	4.7	No	Pick	Rehab	Loose/Missing Bricks	N/A	Yes		72
(RV14)1114	2010 W 2ND PL	N/A	Grass Esmt	40	7.5	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		792
(RV14)1115	2020 W 2ND PL	N/A	Grass Esmt	30	4.4	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		792
(RV14)1115A	205 S UTAH AVE	N/A	Center Street	40	7.8	No	Pick	Rehab	Leaking Step/Lifting Hole	N/A	No	677	288
(RV14)1116	215 S SEATTLE AVE	N/A	Center Street	44	6.3	Yes	Pick	Block	Cracked	N/A	No		15,273
(RV14)1118	200 S LAREDO AV	Manhole	Center Street	39	8.5	Yes	Concealed	Rehab	Sound	N/A	Yes	360	1,080
(RV14)1119	1300 W 2ND PL	Manhole	Paved Esmt	40	9.0	No	Pick	Rehab	Sound	N/A	Yes	360	792
(RV14)1120	1300 W 2ND PL	N/A	Center Street	32	3.1	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		288
(RV14)1121	1122 BRADLEY LN	Manhole	Center Street	40	10.2	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		1,728
(RV14)1123	216 S OMAHA AVE	N/A	Center Street	39	3.4	Yes	Pick	Block	Cracked	N/A	No	1,037	9,176
(RV14)1124	215 S PHOENIX AVE	N/A	Center Street	18	2.8	No	Concealed	Rehab	Loose/Missing Bricks	N/A	No		
(RV14)1125	214 S QUANA AVE	N/A	Center Street	40	3.8	No	Concealed	None	N/A	N/A	No		
(RV14)1126	226 S RENO AVE	N/A	Center Street	40	4.1	No	None	None	N/A	N/A	No		1,440
(RV14)1145	38 S INDEPENDENCE	N/A	Center Street	40	3.8	No	Pick	None	N/A	N/A	No		288
(RV14)1146	303 S HOUSTON PL	N/A	Center Street	33	2.3	No	Pick	None	N/A	N/A	No		288

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(RV14)1146A	806 W 3RD ST	N/A	Center Street	47	3.3	No	Concealed	None	N/A	N/A	No	317	
(RV14)1147	300 SECTION GLENWOOD	N/A	Center Street	36	3.7	No	Pick	None	N/A	N/A	No		288
(RV14)1148	319 S GLENWOOD AV	N/A	Center Street	32	3.6	No	Pick	None	N/A	N/A	No		288
(RV14)1149	321 S HOUSTON PL	N/A	Center Street	36	3.0	No	Pick	None	N/A	N/A	No		288
(RV14)1150	314 S INDEPENDENCE AV	N/A	Center Street	40	4.4	No	Pick	Rehab	Loose/Missing Bricks	N/A	Yes	317	576
(RV14)1153	329 S GLENWOOD AV	N/A	Center Street	23	3.8	No	Pick	Rehab	Loose/Missing Bricks	N/A	Yes		1,296
(RV14)1154	408 S GLENWOOD AVE	N/A	Center Street	30	2.4	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		576
(RV14)1155	322 S HOUSTON AV	N/A	Center Street	28	2.4	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		1,008
(RV14)1156	322 S HOUSTON PL	N/A	Center Street	28	2.2	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		288
(RV14)1157	326 S INDEPENDANCE AV	N/A	Center Street	30	2.0	No	Pick	Rehab	Loose/Missing Bricks	N/A	No	317	576
(RV14)1158	800 W 4TH ST	N/A	Center Street	24	2.0	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		1,296
(RV14)1161	420 S GLENWOOD AV	N/A	Center Street	36	3.7	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		576
(RV14)1162	819 W 4TH ST	N/A	Grass Esmt	48	5.2	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV14)1162A	611 W 4TH PL	N/A	Grass Esmt	43	3.3	No	Concealed	Rehab	Loose/Missing Bricks	N/A	No		
(RV14)1162B	819 4TH ST	N/A	Grass Esmt	48	4.5	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV14)1213	UNK W 5TH AV	N/A	Grass Esmt	34	5.0	No	Pick	Rehab	Loose/Missing Bricks	N/A	Yes	317	288
(RV14)1213A	UNK HOUSTON AND 4TH	N/A	Grass Esmt	44	4.4	Yes	Pick	Rehab	Loose/Missing Bricks	N/A	No		4,394
(RV14)1218	500 S GLENWOOD AVE	N/A	Center Street	40	4.1	No	Concealed	Rehab	Loose/Missing Bricks	N/A	No		173
(RV14)1220	512 S GLENWOOD AV	N/A	Center Street	46	6.3	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		2,448
(RV14)1227	600 S GLENWOOD AV	N/A	Center Street	40	4.9	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		288
(RV14)1228	504 W 7TH ST	N/A	Center Street	34	4.9	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		288
(RV14)1299	219 S PHOENIX AVE	N/A	Center Street	40	3.9	No	Concealed	None	N/A	N/A	No		504
(RV14)1300	1611 BRADLEY LN	N/A	Center Street	36	5.6	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		792
(RV14)1301	1807 BRADLEY LN	N/A	Center Street	40	6.5	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		1,008
(RV14)1302	1820 BRADLEY LN	N/A	Center Street	44	6.8	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		1,008

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(RV14)1304	1505 W 3RD ST	N/A	Center Street	35	2.2	No	Concealed	Block	Cracked	N/A	No		
(RV14)1305	1607 W 3RD ST	N/A	Center Street	46	5.8	No	Concealed	Rehab	Loose/Missing Bricks	N/A	No		
(RV14)1306	305 S PHOENIX AVE	N/A	Center Street	37	4.3	No	Concealed	Rehab	Loose/Missing Bricks	N/A	No		
(RV14)1307	309 W 3RD CT	N/A	Center Street	46	3.3	No	Concealed	None	N/A	N/A	No		504
(RV14)1308	1701 S QUANAH AVE	N/A	Center Street	48	4.1	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		288
(RV14)1308A	1811 W 3RD CT	N/A	Grass Esmt	36	6.0	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		1,008
(RV14)1309	1819 W 3RD ST	N/A	Center Street	46	5.3	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		288
(RV14)1310	1920 W 3RD ST	N/A	Grass Esmt	40	9.6	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		288
(RV14)1312	1901 W 3RD CT	N/A	Center Street	29	7.9	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		288
(RV14)1313	2001 W 3RD CT	N/A	Center Street	44	3.3	Yes	Pick	None	N/A	N/A	No		4,248
(RV14)1323	2220 W 2ND PL	N/A	Grass Esmt	40	6.4	No	Pick	Rehab	Loose/Missing Bricks	N/A	Yes		576
(RV14)1324	233 S ARLINGTON AVE	N/A	Grass Esmt	42	4.7	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		72
(RV14)1325	237 S ARLINGTON AVE	N/A	Grass Esmt	40	6.7	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		792
(RV14)1326	2500 BRADLEY LN	N/A	Center Street	43	4.3	No	Pick	None	N/A	N/A	No	317	245
(RV14)1327	2505 BRADLEY LN	N/A	Grass Esmt	44	4.3	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		792
(RV14)1328	2511 BRADLEY LN	N/A	Grass Esmt	42	4.9	No	Pick	Rehab	Loose/Missing Bricks	N/A	Yes	317	288
(RV14)1330	2615 BRADLEY LN	N/A	Grass Esmt	27	5.8	No	Pick	Poured	Leaking Step/Lifting Hole	N/A	No	1,714	288
(RV14)1472	1705 BRADLEY LN	N/A	Grass Esmt	20	206.0	No	Pick	Rehab	Loose/Missing Bricks	N/A	Yes		288
(RV14)1516	413 W 6TH ST	N/A	Center Street	40	2.1	No	Concealed	Rehab	Loose/Missing Bricks	N/A	No		2,160
(RV14)1517	613 S DENVER AVE	N/A	Center Street	30	2.2	No	Concealed	None	N/A	N/A	No		720
(RV14)1529	800 S DENVER AVE	N/A	Center Street	34	4.9	No	Concealed	Rehab	Loose/Missing Bricks	N/A	No		720
(RV14)1530	219 W 8TH ST	N/A	Center Street	38	6.2	No	Concealed	None	N/A	N/A	No		720
(RV14)1531	213 W 8TH ST	N/A	Center Street	48	4.7	No	Concealed	Rehab	Loose/Missing Bricks	N/A	No		
(RV14)1532	114 W 8TH ST	N/A	Center Street	33	2.1	No	Pick	Brick	Sound	N/A	No	360	864
(RV14)1533	802 S BOULDER AVE	N/A	Center Street	38	3.7	No	Concealed	None	N/A	N/A	No	288	504

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(RV14)1534	902 S BOULDER AVE	N/A	Center Street	34	3.7	No	Pick	Rehab	Loose/Missing Bricks	N/A	Yes	317	1,008
(RV14)1831	903 W MAIN ST	N/A	Center Street	39	4.1	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		2,448
(RV14)1832	814 W 2ND ST	N/A	Grass Esmt	43	3.8	No	Pick	Poured	Loose/Missing Bricks	N/A	No		792
(RV14)2009	908 W B ST	N/A	Paved Esmt	N/A	N/A	No	Concealed	N/A	N/A	N/A	No		720
(RV14)2011	UNK S OMAHA AVE	Cleanout	Grass Esmt	N/A	4.2	No	Concealed	None	N/A	N/A	No		720
(RV14)2013	140 BRADLEY	N/A	Grass Esmt	N/A	N/A	No	Concealed	N/A	N/A	N/A	No		
(RV14)2063	1250 W 2ND PL	Manhole	Grass Esmt	N/A	N/A	No	Pick	None	N/A	N/A	No		1,541
(RV14)2148	238 S CUMBERLAND AVE	N/A	Grass Esmt	40	4.5	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		1,008
(RV14)2175	1300 W 2ND PL	N/A	Not Found	N/A	N/A	No	N/A	N/A	N/A	N/A	No		
(RV14)2176	1400 W 2ND ST	N/A	Grass Esmt	48	5.5	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV14)2185	200 COBBLESTONE CT	N/A	Grass Esmt	N/A	N/A	No	Concealed	N/A	N/A	N/A	No		
(RV14)2194	809 W MAIN STREET	N/A	Buried	N/A	N/A	No	N/A	N/A	N/A	N/A	No		
(RV14)2308	UNK S SEATTLE	Manhole	Grass Esmt	48	12.4	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV14)2309	102 S RENO	Manhole	Grass Esmt	48	12.5	No	Concealed	Poured	Sound	N/A	No	144	
(RV14)2310	102 S RENO AVE	Manhole	Grass Esmt	48	N/A	No	Concealed	Poured	Loose/Missing Bricks	N/A	No	144	
(RV14)2311	208 COBBLESTONE CT	N/A	Grass Esmt	48	7.1	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV14)2312	204 COBBLESTONE CT	N/A	Grass Esmt	48	7.0	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV14)2313	150 S TULSA	N/A	Not Found	N/A	N/A	No	N/A	N/A	N/A	N/A	No		
(RV14)2807	1701 W 3RD PL	N/A	Center Street	34	3.8	No	Pick	Rehab	Loose/Missing Bricks	N/A	Yes		288
(RV14)2807A	1812 W 3RD PL	N/A	Gutter	N/A	N/A	No	Concealed	N/A	N/A	N/A	No		7,200
(RV14)2814	208 S PHOENIX AVE	N/A	Grass Esmt	48	8.0	No	Concealed	Rehab	Loose/Missing Bricks	N/A	No		
(RV14)2822	1200 W B ST	Manhole	Grass Esmt	48	8.3	No	Concealed	Rehab	Leaking Step/Lifting Hole	N/A	Yes	1,397	
(RV14)2823	1112 W MAIN	N/A	Not Found	N/A	N/A	No	N/A	N/A	N/A	N/A	No		
(RV14)2824	800 W B ST	N/A	Center Street	31	3.4	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		461
(RV14)2826	105 S HOUSTON AVE	N/A	Buried	N/A	N/A	No	N/A	N/A	N/A	N/A	No		

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Manhole Number	Address /Street	Structure Type	Location	Manhole Diam. (in.)	Manhole Depth (ft.)	Subj. Pond.	Cover Type	Wall Const.	Wall Condition	H ₂ S gas Corrosion	Surcharge Evidence	Infilt. (gpd)	Inflow (gpd)
(RV14)2828	308 S INDEPENDENCE	N/A	Paved Esmt	72	3.0	No	Pick	Poured	Loose/Missing Bricks	N/A	No		288
(RV14)2830	650 W 6TH ST	N/A	Center Street	36	3.8	No	Pick	None	N/A	N/A	No		288
(RV14)2833	416 W 8TH ST	N/A	Center Street	42	5.1	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		288
(RV14)2846	1814 W 2ND ST	N/A	Center Street	48	5.2	No	Pick	Rehab	Cracked	N/A	No	1,354	792
(RV14)2847	1713 W MAIN	N/A	Grass Esmt	44	2.8	No	Concealed	None	N/A	N/A	No		
(RV14)2848	UNK 2ND	Manhole	Grass Esmt	48	7.5	No	Concealed	Rehab	Sound	N/A	Yes	288	
(RV14)2849	1501 BRADLEY LN	N/A	Center Street	36	3.9	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		288
(RV14)2850	1501 W 3RD ST	N/A	Center Street	38	3.8	No	Pick	Rehab	Sound	N/A	No	360	1,008
(RV14)2851	1400 W 2ND ST	N/A	Grass Esmt	48	5.9	Yes	Concealed	Poured	Loose/Missing Bricks	N/A	Yes		720
(RV14)2852	1901 W 3RD PL	N/A	Center Street	48	4.8	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		288
(RV14)2853	610 S QUANAH AVE	N/A	Grass Esmt	24	1.2	No	Concealed	None	N/A	N/A	No		
(RV14)2880	911 W B ST	N/A	Center Street	40	3.5	No	Concealed	None	N/A	N/A	No		
(RV14)3396	2506 W 2ND LN	N/A	Grass Esmt	36	7.1	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		792

Manhole Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

Manhole Number	Address /Street	Structure Type	Location	Manhole Diam. (in.)	Depth (ft.)	Subj. Pond. Type	Wall Const.	Wall Condition	H ₂ S gas Corrosion	Surcharge Evidence	Infilt. (gpd)	Inflow (gpd)
Totals for Basin RV14										27,029	191,340	
Total Manholes		188	Percent:									
Manholes Inspected		178	Inspected		94.68%							
Manholes Not Inspected		10	Not Inspected		5.32%							
Manholes Buried		2	Buried		1.06%							
Manholes Not Found		7	Not Found		3.72%							
Manholes Inaccessible		1	Inaccessible		0.53%							
Location Not Specified		0										
Evidence of Surcharge		35	Surcharge		18.62%							
Subject to Ponding		14	Ponding		7.45%							
Subject to Sheeting		117	Sheeting		62.23%							

Manhole Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

Manhole Number	Address /Street	Structure Type	Location	Manhole Diam. (in.)	Manhole Depth (ft.)	Subj. Pond.	Cover Type	Wall Const.	Wall Condition	H ₂ S gas Corrosion	Surcharge Evidence	Infiltr. (gpd)	Inflow (gpd)
(RV23)1002	301 EL PASO	N/A	Paved Esmt	48	7.5	No	Pick	Brick	Sound	N/A	No	360	1,512
(RV23)1018	301 EL PASO	N/A	Grass Esmt	48	7.0	No	Concealed	Precast	Loose/Missing Bricks	N/A	No		720
(RV23)1019	301 EL PASO	N/A	Grass Esmt	48	4.8	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		720
(RV23)1020	301 EL PASO	N/A	Center Street	40	6.0	No	Concealed	Brick	Sound	N/A	No	360	1,224
(RV23)1027	807 W C ST	N/A	Center Street	48	4.5	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		576
(RV23)1028	210 N HOUSTON	N/A	Center Street	48	5.1	No	Concealed	Rehab	Loose/Missing Bricks	N/A	No		
(RV23)1048	500 W B ST	N/A	Center Street	31	3.8	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		3,171
(RV23)1049	612 W B ST	N/A	Center Street	30	4.2	No	Concealed	Rehab	Loose/Missing Bricks	N/A	No		
(RV23)1065	6002 W MAIN ST	N/A	Center Street	33	4.9	No	Pick	None	N/A	N/A	No		3,171
(RV23)1066	700 W MAIN ST	N/A	Center Street	33	4.7	No	Pick	None	N/A	N/A	No		2,602
(RV23)1077	115 S FARGO	N/A	Center Street	40	4.5	No	Concealed	Brick	Sound	N/A	No	360	
(RV23)1473	501 W 4TH ST	N/A	Center Street	24	2.6	No	Concealed	Rehab	Sound	N/A	No	360	
(RV23)1474	505 W 3RD PL	N/A	Center Street	34	4.9	No	Pick	None	N/A	N/A	No		288
(RV23)1475	UNK S EL PASO AVE	N/A	Center Street	34	4.3	No	Concealed	None	N/A	N/A	No		1,440
(RV23)1476	UNK EL PASO	N/A	Center Street	30	4.2	No	Concealed	Brick	Sound	N/A	No	677	720
(RV23)1477	511 W MAIN ST	N/A	Inaccessible	N/A	N/A	No	N/A	N/A	N/A	N/A	No		720
(RV23)1482	301 EL PASO	N/A	Center Street	48	N/A	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV23)1483	UNK W PARKWAY DR	Manhole	Center Street	48	9.6	No	Pick	Brick	Sound	N/A	Yes	360	1,371
(RV23)1486	412 W PARKWAY DR	N/A	Grass Esmt	48	5.5	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		720
(RV23)1487	UNK W PARKWAY DR	Manhole	Gutter	36	4.1	No	Pick	None	N/A	N/A	Yes	317	3,456
(RV23)1488	UNK W PARKWAY	Manhole	Paved Esmt	36	4.6	No	Concealed	None	N/A	N/A	Yes		1,224
(RV23)1489	307 W C ST	N/A	Center Street	27	3.1	No	Concealed	Rehab	Loose/Missing Bricks	N/A	No		720
(RV23)1491	309 W MAIN ST	N/A	Buried	N/A	N/A	No	N/A	N/A	N/A	N/A	No		
(RV23)1492	115 S DENVER AVE	N/A	Center Street	36	4.8	No	Pick	None	N/A	N/A	Yes		2,956
(RV23)1493	110 S COMMERCE AVE	N/A	Center Street	47	6.5	No	Concealed	Rehab	Loose/Missing Bricks	N/A	No		720

Manhole Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

Manhole Number	Address /Street	Structure Type	Location	Manhole Diam. (in.)	Manhole Depth (ft.)	Subj. Pond.	Cover Type	Wall Const.	Wall Condition	H ₂ S gas Corrosion	Surcharge Evidence	Infiltr. (gpd)	Inflow (gpd)
(RV23)1494	111 S BOULDER AVE	N/A	Center Street	44	4.7	No	Concealed	Rehab	Loose/Missing Bricks	N/A	No		720
(RV23)1495	111 S ARKANSAS AVE	N/A	Buried	N/A	N/A	No	N/A	N/A	N/A	N/A	No		
(RV23)1496	115 S DENVER AVE	N/A	Center Street	38	4.0	Yes	Concealed	None	N/A	N/A	Yes		11,088
(RV23)1497	122 S COMMERCE AVE	N/A	Center Street	32	2.9	No	Pick	None	N/A	N/A	No		2,220
(RV23)1498	201 W 2ND ST	N/A	Center Street	36	3.6	No	Pick	None	N/A	N/A	No		1,587
(RV23)1499	105 S ARKANSAS AVE	N/A	Inaccessible	N/A	N/A	No	N/A	N/A	N/A	N/A	No		
(RV23)1500	105 W 2ND ST	N/A	Inaccessible	N/A	N/A	No	N/A	N/A	N/A	N/A	No		
(RV23)1501	304 S DENVER AVE	N/A	Center Street	36	4.6	No	Concealed	None	N/A	N/A	Yes		720
(RV23)1502	200 S COMMERCE AVE	N/A	Center Street	34	3.1	Yes	Pick	None	N/A	N/A	Yes		8,067
(RV23)1503	301 S BOULDER AVE	N/A	Center Street	34	3.5	No	Pick	None	N/A	N/A	Yes		1,008
(RV23)1504	320 S DENVER AVE	N/A	Center Street	36	3.4	No	Pick	None	N/A	N/A	Yes		867
(RV23)1505	318 S COMMERCE AVE	N/A	Center Street	34	3.2	No	Pick	None	N/A	N/A	Yes		1,587
(RV23)1506	312 S BOULDER AVE	N/A	Center Street	38	4.4	No	Concealed	None	N/A	N/A	No		
(RV23)1507	210 S ARKANSAS AVE	N/A	Center Street	40	4.1	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		1,732
(RV23)1508	318 S ARKANSAS AVE	N/A	Center Street	48	6.1	No	Concealed	Rehab	Loose/Missing Bricks	N/A	No		720
(RV23)1509	400 S DENVER AVE	N/A	Center Street	34	2.4	No	Pick	None	N/A	N/A	No		1,587
(RV23)1510	400 S COMMERCE AVE	N/A	Center Street	35	3.8	No	Pick	None	N/A	N/A	Yes		19,820
(RV23)1511	325 S BOULDER AVE	N/A	Center Street	36	3.9	Yes	Pick	Rehab	Loose/Missing Bricks	N/A	No		8,067
(RV23)1512	501 S DENVER AVE	N/A	Center Street	36	3.3	No	Concealed	None	N/A	N/A	No		720
(RV23)1513	413 S COMMERCE AVE	N/A	Center Street	36	3.5	No	Pick	None	N/A	N/A	No		1,332
(RV23)1514	421 S BOULDER AVE	N/A	Center Street	38	4.7	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		576
(RV23)1515	514 S DENVER AVE	N/A	Center Street	42	5.0	Yes	Concealed	Rehab	Loose/Missing Bricks	N/A	Yes		7,920
(RV23)1518	600 S COMMERCE AVE	N/A	Center Street	36	5.7	No	Concealed	Rehab	Loose/Missing Bricks	N/A	No		720
(RV23)1519	509 S BOULDER AVE	N/A	Center Street	36	5.4	No	Pick	Rehab	Loose/Missing Bricks	N/A	Yes		1,945
(RV23)1520	119 W 6TH ST	N/A	Center Street	24	2.7	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		612

Manhole Inspection Report

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Manhole Number	Address /Street	Structure Type	Location	Manhole Diam. (in.)	Manhole Depth (ft.)	Subj. Pond.	Cover Type	Wall Const.	Wall Condition	H ₂ S gas Corrosion	Surcharge Evidence	Infiltr. (gpd)	Inflow (gpd)
(RV23)1521	422 S ARKANSAS AVE	N/A	Center Street	42	7.6	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		1,378
(RV23)1522	517 S ARKANSAS AVE	N/A	Center Street	32	4.0	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		1,225
(RV23)1523	702 S COMMERCE AVE	N/A	Center Street	38	4.1	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		1,008
(RV23)1524	201 W 7TH ST	N/A	Center Street	48	6.4	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		1,225
(RV23)1525	114 W 7TH ST	N/A	Center Street	33	3.4	Yes	Pick	None	N/A	N/A	No		1,622
(RV23)1526	700 S ARKANSAS AVE	N/A	Center Street	42	4.8	No	Pick	None	N/A	N/A	No		2,016
(RV23)1527	717 S ARKANSAS AVE	N/A	Center Street	20	4.3	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		1,734
(RV23)1528	710 S COMMERCE AVE	N/A	Center Street	46	3.8	Yes	Pick	Rehab	Loose/Missing Bricks	N/A	Yes		11,235
(RV23)1536	201 N ARKANSAS	N/A	Paved Esmt	48	4.2	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV23)1556	300 N COMMERCE AVE	Manhole	Gutter	36	4.4	No	Pick	None	N/A	N/A	Yes		4,035
(RV23)1557	UNK N ARKANSAS AV	Manhole	Paved Esmt	32	4.0	No	Pick	None	N/A	N/A	No		72
(RV23)1558	UNK N ARKANSAS AV	Manhole	Grass Esmt	32	3.3	No	Pick	None	N/A	N/A	No		1,008
(RV23)1559	UNK N ARKANSAS AV	Manhole	Grass Esmt	36	3.5	No	Pick	Rehab	Sound	N/A	Yes	360	792
(RV23)1560	201 N ARKANSAS	N/A	Paved Esmt	34	4.4	No	Pick	None	N/A	N/A	No		1,732
(RV23)1562	212 N ARKANSAS AVE	N/A	Center Street	36	7.9	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		461
(RV23)1563	212 N ARKANSAS AVE	N/A	Center Street	48	8.1	No	Pick	Rehab	Sound	N/A	No	144	867
(RV23)1565	UNK ARKANSAS	Manhole	Grass Esmt	47	5.2	No	Pick	None	N/A	N/A	Yes		749
(RV23)1569	110 N ARKANSAS AVE	N/A	Center Street	44	5.3	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		1,587
(RV23)1774	301 EL PASO	N/A	Paved Esmt	48	8.6	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV23)1775	301 EL PASO	N/A	Paved Esmt	48	48.0	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV23)1776	301 EL PASO	N/A	Grass Esmt	48	5.1	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV23)2058	213 GLENWOOD	N/A	Not Found	N/A	N/A	No	N/A	N/A	N/A	N/A	No		
(RV23)2108	200 W MAIN	N/A	Paved Esmt	48	6.5	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV23)2109	200 W MAIN	N/A	Paved Esmt	48	5.9	No	Concealed	Poured	Loose/Missing Bricks	N/A	Yes		504
(RV23)2110	200 W MAIN	N/A	Paved Esmt	48	4.4	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		

Manhole Inspection Report

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Manhole Number	Address /Street	Structure Type	Location	Manhole Diam. (in.)	Manhole Depth (ft.)	Subj. Pond.	Cover Type	Wall Const.	Wall Condition	H ₂ S gas Corrosion	Surcharge Evidence	Infilt. (gpd)	Inflow (gpd)
(RV23)2111	200 W MAIN ST	N/A	Paved Esmt	48	4.5	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV23)2167	111 BOULDER	N/A	Paved Esmt	40	4.6	No	Pick	None	N/A	N/A	No		792
(RV23)2357	UNK N GLENWOOD AVE	N/A	Grass Esmt	48	6.2	No	Concealed	Poured	Loose/Missing Bricks	N/A	No		
(RV23)2358	405 N EL PASO	Manhole	Grass Esmt	48	9.8	No	Pick	Poured	Loose/Missing Bricks	N/A	Yes		72
(RV23)2827	701 W MAIN ST	N/A	Gutter	35	2.9	No	Pick	Brick	Sound	N/A	No	360	7,488
(RV23)2855	708 W B ST	N/A	Center Street	24	4.3	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		576
(RV23)2856	500 W B ST	N/A	Center Street	33	3.9	No	Pick	Brick	Sound	N/A	No	360	1,587
(RV23)2857	201 N DENVER	N/A	Center Street	27	2.5	No	Concealed	Not Visib	N/A	N/A	No		1,224
(RV23)2858	311 W B ST	N/A	Grass Esmt	30	2.8	No	Pick	None	N/A	N/A	No		1,836
(RV23)2859	311 W B ST	N/A	Paved Esmt	29	2.6	No	Pick	Rehab	Loose/Missing Bricks	N/A	No		288
(RV23)2859A	311 W B ST	N/A	Center Street	30	1.7	No	Concealed	Precast	Loose/Missing Bricks	N/A	No		720
(RV23)2859B	321 W B ST	N/A	Center Street	18	2.0	No	Concealed	Plastic	Loose/Missing Bricks	N/A	No		
(RV23)2873	200 W E ST	Manhole	Grass Esmt	47	6.6	No	Concealed	Rehab	Loose/Missing Bricks	N/A	Yes		720
(RV23)2874	702 ARKANSAS AVE	N/A	Grass Esmt	18	4.3	No	Concealed	Other	Loose/Missing Bricks	N/A	No		

Manhole Inspection Report

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Manhole Number	Address /Street	Structure Type	Location	Manhole Diam. (in.)	Depth (ft.)	Subj. Pond. Type	Wall Const.	Wall Condition	H ₂ S gas Corrosion	Surcharge Evidence	Infilt. (gpd)	Inflow (gpd)
Totals for Basin RV23											4,018	150,201
Total Manholes		89	Percent:									
Manholes Inspected		83	Inspected		93.26%							
Manholes Not Inspected		6	Not Inspected		6.74%							
Manholes Buried		2	Buried		2.25%							
Manholes Not Found		1	Not Found		1.12%							
Manholes Inaccessible		3	Inaccessible		3.37%							
Location Not Specified		0										
Evidence of Surcharge		20	Surcharge		22.47%							
Subject to Ponding		6	Ponding		6.74%							
Subject to Sheeting		42	Sheeting		47.19%							

Manhole Inspection Report

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Manhole Number	Address /Street	Structure Type	Location	Manhole Diam. (in.)	Depth (ft.)	Subj. Pond. Type	Wall Const.	Wall Condition	H ₂ S gas Corrosion	Surcharge Evidence	Infiltr. (gpd)	Inflow (gpd)
Totals for All Basins												
Total Manholes		498		Percent:								
Manholes Inspected		478		Inspected		95.98%						
Manholes Not Inspected		20		Not Inspected		4.02%						
Manholes Buried		4		Buried		0.80%						
Manholes Not Found		10		Not Found		2.01%						
Manholes Inaccessible		6		Inaccessible		1.20%						
Location Not Specified		0										
Evidence of Surcharge		92		Surcharge		18.47%						
Subject to Ponding		23		Ponding		4.62%						
Subject to Sheeting		229		Sheeting		45.98%						

Total Infiltration =	54,734
Total Inflow =	464,391

APPENDIX B

VISUAL PIPE INSPECTION REPORT

Visual Pipe Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition				Line Grade	Visual Infiltr. (gpm)	Observed		Cleaning Method	Rim to Invert (ft.)	Rim to Crown (ft.)
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)	Structural Condition			Depth (in.)	Velocity (fps)			
(RV07) 0021	(RV07) 0022	NE-0	N/A	N/A	No	N/A	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	N/A
(RV07) 1008A	(RV07) 1001	NE Out	21	Vitrified Clay	No	None	N/A	Good	N/A	0	5.5	3.0	N/A	8.3	N/A
	(RV07) 1008	SW In	21	Vitrified Clay	No	None	N/A	Good	N/A	0	5.0	2.8	N/A	8.2	N/A
(RV07) 1467	(RV07) 6385	SE Out	10	Vitrified Clay	No	Debris	2.0	Good	N/A	0	2.0	0.5	N/A	4.7	N/A
	(RV07) UNK	W In	10	Vitrified Clay	No	Debris	2.0	Good	N/A	0	2.0	0.5	N/A	4.7	N/A
(RV07) 1467A	(RV07) 1467	E Out	10	Vitrified Clay	No	Debris	1.0	Good	N/A	0	4.0	0.5	N/A	4.4	N/A
	(RV07) 1467B	W In	10	Vitrified Clay	No	Debris	1.0	Good	N/A	0	4.0	0.5	N/A	4.4	N/A
	(RV07) SVC	N In	6	Vitrified Clay	No	None	N/A	Offset	N/A	0	5.0	0.1	N/A	4.5	N/A
(RV07) 1484	(RV07) 1010	NW Out	12	Vitrified Clay	No	Mud	0.1	Longitudinal Cracks	N/A	N/A	3.5	1.5	N/A	5.2	N/A
	(RV07) 2153	SE In	12	Vitrified Clay	Yes	None	N/A	Circular Cracks	N/A	N/A	3.0	1.0	N/A	5.2	N/A
(RV07) 1788	(RV07) 6115	SE Out	8	PVC	No	None	N/A	Good	N/A	0	1.0	N/A	N/A	3.9	N/A
	(RV07) EOL	NW In	8	PVC	Yes	None	N/A	Circular Cracks	N/A	0	0.8	N/A	N/A	3.9	N/A
(RV07) 1811	(RV07) 1829	NE Out	6	PVC	No	None	N/A	Good	N/A	0	1.0	N/A	N/A	3.9	N/A
	(RV07) EOL	S In	6	PVC	No	None	N/A	Good	N/A	0	0.5	N/A	N/A	3.8	N/A
	(RV07) EOL	SE In	8	PVC	No	None	N/A	Good	N/A	0	1.5	N/A	N/A	3.8	N/A
(RV07) 1830A	(RV07) 1830	SE In	18	Vitrified Clay	No	None	N/A	Longitudinal Cracks	N/A	0	7.0	1.0	N/A	6.6	N/A
	(RV07) 2882	NW Out	24	Cast Iron	No	None	N/A	Good	N/A	0	2.0	2.5	N/A	7.4	N/A
(RV07) 2085	(RV07) 1448	SW Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	2.0	0.3	N/A	7.7	N/A
	(RV07) 2085	W In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.5	N/A	6.2	N/A
	(RV07) 2806	E In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.5	0.3	N/A	7.7	N/A
(RV07) 2153	(RV07) 1484	NW Out	12	Vitrified Clay	No	None	N/A	Good	N/A	0	5.0	1.0	N/A	4.8	N/A
	(RV07) 2873	SW In	12	Vitrified Clay	No	None	N/A	Good	N/A	0	3.0	1.5	N/A	4.8	N/A
	(RV07) SVC	SE In	4	Vitrified Clay	No	Mud	1.5	Circular Cracks	N/A	N/A	N/A	N/A	N/A	3.2	N/A

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

Visual Pipe Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Structural Condition	Line Grade	Visual Infiltr. (gpm)	Observed		Cleaning Method	Rim to Invert (ft.)	Rim to Crown (ft.)
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)				Depth (in.)	Velocity (fps)			
(RV07) 2197A	(RV07) 2197	E Out	10	PVC	No	None	N/A	Good	N/A	0	0.8	1.0	N/A	10.0	N/A
	(RV07) 2866	NW In	10	PVC	No	None	N/A	Good	N/A	0	1.0	0.8	N/A	9.8	N/A
(RV07) 2247	(RV07) 2248	SE Out	8	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	6.0	N/A
	(RV07) SVC	SW In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	5.7	N/A
(RV07) 2248	(RV07) 2197A	SE Out	8	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	7.3	N/A
	(RV07) 2247	NW In	8	PVC	No	None	N/A	Good	N/A	0	1.0	N/A	N/A	7.4	N/A
(RV07) 2249	(RV07) 2250	SE In	8	PVC	No	None	N/A	Good	N/A	0	0.5	N/A	N/A	5.9	N/A
	(RV07) 2813	NW Out	8	PVC	No	None	N/A	Good	N/A	0	0.3	N/A	N/A	6.0	N/A
(RV07) 2250	(RV07) 2249	NW Out	8	PVC	No	None	N/A	Good	N/A	0	0.3	N/A	N/A	4.5	N/A
	(RV07) 2251	SE In	8	PVC	No	None	N/A	Good	N/A	0	1.0	N/A	N/A	4.5	N/A
	(RV07) SVC	SW In	4	Other	Yes	Future	4.0	Offset	N/A	N/A	N/A	N/A	N/A	4.3	N/A
(RV07) 2251	(RV07) 2250	NW Out	8	PVC	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	4.6	N/A
	(RV07) 2252	SE In	8	PVC	No	None	N/A	Good	N/A	0	1.5	N/A	N/A	4.6	N/A
	(RV07) SVC	E In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	4.3	N/A
(RV07) 2252	(RV07) 2251	NW Out	8	PVC	No	None	N/A	Good	N/A	0	1.0	N/A	N/A	5.4	N/A
	(RV07) 2253	SE In	8	PVC	No	None	N/A	Good	N/A	0	0.1	N/A	N/A	5.3	N/A
(RV07) 2253	(RV07) 2252	NW Out	8	PVC	No	None	N/A	Good	N/A	0	0.1	N/A	N/A	6.1	N/A
	(RV07) SVC	NE In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	5.6	N/A
(RV07) 2806	(RV07) 2085	W Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	0.8	N/A	4.6	N/A
	(RV07) SVC	N In	6	PVC	No	None	N/A	Good	N/A	0	0.5	0.5	N/A	4.0	N/A
	(RV07) SVC	SW In	6	Vitrified Clay	Yes	None	N/A	Circular Cracks	N/A	0	0.3	0.8	N/A	4.6	N/A
(RV07) 2810	(RV07) 2811	SE Out	8	PVC	No	None	N/A	Good	N/A	0	0.3	N/A	N/A	4.6	N/A
	(RV07) EOL	NW In	8	PVC	Yes	None	N/A	Circular Cracks	N/A	N/A	1.3	N/A	N/A	4.7	N/A

1. "SVC"-Service Lateral/Building Lateral Connection
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Visual Pipe Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition		Structural Condition	Line Grade	Visual Infiltr. (gpm)	Observed		Cleaning Method	Rim to Invert (ft.)	Rim to Crown (ft.)	
		Dir.	Diam (in.)	Construction	Root Growth	Depth Type (in.)				Depth (in.)	Velocity (fps)				
(RV07) 2811	(RV07) 2810	NW In	8	PVC	No	None	N/A	Good	N/A	0	0.3	0.1	N/A	4.7	N/A
	(RV07) 2812	SE Out	8	PVC	No	None	N/A	Good	N/A	0	0.3	0.1	N/A	4.7	N/A
	(RV07) SVC	NE In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	4.2	N/A
(RV07) 2812	(RV07) 2811	NW In	8	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	6.8	N/A
	(RV07) 2813	SE In	8	PVC	No	None	N/A	Good	N/A	0	0.5	N/A	N/A	6.8	N/A
	(RV07) 3037	SW Out	8	PVC	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	6.9	N/A
(RV07) 2813	(RV07) SVC	NE In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	6.5	N/A
	(RV07) 2249	SE In	8	PVC	No	None	N/A	Good	N/A	0	1.5	N/A	N/A	5.9	N/A
	(RV07) 2812	NW Out	8	PVC	No	None	N/A	Good	N/A	0	0.1	0.3	N/A	5.9	N/A
(RV07) 2860	(RV07) SVC	NE In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	5.5	N/A
	(RV07) 1001	NE Out	12	PVC	No	Mud	1.0	Good	N/A	0	N/A	N/A	N/A	4.9	N/A
	(RV14) 1007	SW In	12	Vitrified Clay	No	Mud	1.0	Good	N/A	0	N/A	N/A	N/A	4.8	N/A
(RV07) 2861	(RV07) 1010	NE Out	6	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	5.1	N/A
	(RV07) SVC	SE In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	4.9	N/A
	(RV07) SVC	SW In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	4.8	N/A
(RV07) 2866	(RV07) 2197A	SE Out	10	PVC	No	None	N/A	Good	N/A	0	1.0	1.5	N/A	9.1	N/A
	(RV07) EOL	W In	10	PVC	No	None	N/A	Good	N/A	0	1.0	1.0	N/A	8.8	N/A
(RV07) 2881	(RV07) 1001	NE Out	12	PVC	No	Mud	0.2	Good	N/A	0	N/A	N/A	N/A	6.1	N/A
	(RV07) 2860	S In	12	PVC	No	Mud	0.2	Good	N/A	0	N/A	N/A	N/A	6.0	N/A
(RV07) 2888	(RV07) SVC	SE In	4	Vitrified Clay	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	3.6	N/A
	(RV07) SVC	W In	4	Vitrified Clay	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	3.7	N/A
	(RV07) T-CONN	NE Out	6	Vitrified Clay	No	None	N/A	Circular Cracks	N/A	0	1.5	0.2	N/A	4.4	N/A
(RV07) 3001	(RV07) 3420	SW In	8	Vitrified Clay	No	None	N/A	Good	N/A	0	2.3	1.5	N/A	12.8	N/A

1. "SVC"-Service Lateral/Building Lateral Connection
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Visual Pipe Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Structural Condition	Line Grade	Visual Infiltr. (gpm)	Observed		Cleaning Method	Rim to Invert (ft.)	Rim to Crown (ft.)
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)				Depth (in.)	Velocity (fps)			
(RV07) 3001	(RV07) 3425	NE Out	8	Vitrified Clay	No	None	N/A	Good	N/A	0	2.0	1.5	N/A	12.7	N/A
	(RV07) 3430	SE In	8	Vitrified Clay	No	None	N/A	Good	N/A	0	1.3	1.2	N/A	8.0	N/A
(RV07) 3421	(RV07) 3422	N Out	8	PVC	No	None	N/A	Good	N/A	0	0.3	0.3	N/A	5.2	N/A
	(RV07) SVC	SW In	4	PVC	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	4.9	N/A
(RV07) 3422	(RV07) 3421	S In	8	PVC	No	None	N/A	Good	N/A	0	1.0	0.8	N/A	7.0	N/A
	(RV07) 3423	NE Out	8	PVC	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	7.1	N/A
(RV07) 3430	(RV07) 3001	NW Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.5	N/A	3.7	N/A
	(RV07) SVC	S In	4	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	3.1	N/A
	(RV07) SVC	NE In	4	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.5	N/A	3.0	N/A
(RV07) 6001	(RV07) 6002	E In	6	PVC	No	None	N/A	Good	N/A	0	0.3	0.5	N/A	6.2	N/A
	(RV07) 6115	N Out	6	PVC	No	None	N/A	Good	N/A	0	1.0	0.5	N/A	6.5	N/A
(RV07) 6002	(RV07) 1436	S In	6	PVC	No	None	N/A	Good	N/A	0	0.8	0.1	N/A	6.5	N/A
	(RV07) 6001	W Out	6	PVC	No	None	N/A	Good	N/A	0	0.5	0.3	N/A	6.7	N/A
(RV07) 6008	(RV07) 6007	NE Out	8	Vitrified Clay	No	None	N/A	Good	N/A	0	1.5	2.0	N/A	11.9	N/A
	(RV07) 6008	SW In	8	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	2.2	N/A	11.9	N/A
	(RV07) 6009A	W In	8	PVC	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	11.0	N/A
(RV07) 6009	(RV07) 6009A	E Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	3.0	1.0	N/A	11.0	N/A
	(RV07) 6010	W In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	2.5	3.0	N/A	11.0	N/A
(RV07) 6009A	(RV07) 6009	W In	6	PVC	No	None	N/A	Good	N/A	0	0.1	0.2	N/A	7.8	N/A
	(RV07) 6009B	E Out	8	PVC	No	None	N/A	Good	N/A	0	0.1	0.2	N/A	8.3	N/A
	(RV07) EOL	N In	6	PVC	No	Debris	0.3	Offset	N/A	0	N/A	N/A	N/A	7.8	N/A
(RV07) 6010	(RV07) 6009	E Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.5	1.0	N/A	8.7	N/A
	(RV07) 6012	NE In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	8.4	N/A

1. "SVC"-Service Lateral/Building Lateral Connection
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		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)				Depth (in.)	Velocity (fps)			
(RV07) 6010	(RV07) 6017	W In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	2.0	0.1	N/A	8.7	N/A
(RV07) 6012	(RV07) 6010	S Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.1	0.3	N/A	8.0	N/A
	(RV07) 6015	NW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	1.0	N/A	8.0	N/A
(RV07) 6013	(RV07) 6014	W In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.2	N/A	4.9	N/A
	(RV07) 6015	S Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.8	0.2	N/A	5.1	N/A
	(RV07) SVC	N In	4	Vitrified Clay	No	Debris	2.0	Broken Pipe	N/A	N/A	0.2	0.3	N/A	4.6	N/A
(RV07) 6014	(RV07) 6013	E Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	4.9	N/A
	(RV07) SVC	NW In	4	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	4.9	N/A
(RV07) 6015	(RV07) 6012	SE Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.1	0.3	N/A	5.6	N/A
	(RV07) 6013	N In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.2	N/A	5.6	N/A
(RV07) 6016	(RV07) 6017	E Out	6	Vitrified Clay	No	Debris	0.5	Good	N/A	0	0.1	0.1	N/A	6.0	N/A
	(RV07) 6427	N In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.2	N/A	5.9	N/A
	(RV07) SVC	SW In	4	Vitrified Clay	No	None	N/A	Good	N/A	0	0.2	0.2	N/A	5.0	N/A
(RV07) 6018	(RV07) 6008	NE Out	8	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	1.5	N/A	10.0	N/A
	(RV07) 6019	SW In	8	Vitrified Clay	No	None	N/A	Circular Cracks	N/A	0	1.0	1.5	N/A	9.8	N/A
	(RV07) 6029	S In	8	Vitrified Clay	No	None	N/A	Circular Cracks	N/A	0	2.0	0.5	N/A	9.9	N/A
(RV07) 6019	(RV07) 6018	E Out	8	Vitrified Clay	No	None	N/A	Good	N/A	0	2.0	1.5	N/A	8.6	N/A
	(RV07) 6020	W In	8	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	1.0	N/A	8.5	N/A
	(RV07) SVC	NE In	6	Vitrified Clay	Yes	None	N/A	Circular Cracks	N/A	0	0.3	1.0	N/A	3.5	N/A
	(RV07) SVC	NW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	7.3	N/A
	(RV07) SVC	S In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	1.0	N/A	7.3	N/A
(RV07) 6020	(RV07) 6019	E Out	8	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	1.0	N/A	8.1	N/A
	(RV07) 6021	W In	8	Vitrified Clay	No	None	N/A	Circular Cracks	N/A	0	1.0	0.5	N/A	8.1	N/A

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		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)	Structural Condition			Depth (in.)	Velocity (fps)			
(RV07) 6020	(RV07) SVC	S In	8	Vitrified Clay	Yes	Mud	0.5	Circular Cracks	N/A	0	0.1	0.1	N/A	7.4	N/A
	(RV07) SVC	N In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	1.0	N/A	7.3	N/A
(RV07) 6021	(RV07) 6020	E Out	8	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	7.7	N/A
	(RV07) 6022	W In	8	Vitrified Clay	No	None	N/A	Good	N/A	0	1.5	0.5	N/A	7.6	N/A
	(RV07) SVC	N In	6	Vitrified Clay	No	None	N/A	Broken Pipe	N/A	0	N/A	N/A	N/A	6.8	N/A
(RV07) 6022	(RV07) SVC	S In	6	Vitrified Clay	No	None	N/A	Broken Pipe	N/A	0	0.2	0.5	N/A	6.7	N/A
	(RV07) 6021	E Out	8	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.5	N/A	6.7	N/A
	(RV07) 6023	W In	8	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.5	N/A	6.3	N/A
(RV07) 6023	(RV07) 6024	S In	8	Vitrified Clay	No	Debris	4.0	Good	N/A	0	4.0	0.5	N/A	6.7	N/A
	(RV07) EOL	NE In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	6.2	N/A
	(RV07) 6022	E Out	8	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.3	N/A	7.2	N/A
(RV07) 6024	(RV07) 6025	S In	8	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	0.3	N/A	7.2	N/A
	(RV07) 6022	N Out	8	Vitrified Clay	Yes	None	N/A	Circular Cracks	N/A	0	0.5	N/A	N/A	6.1	N/A
	(RV07) EOL	NW In	8	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	5.6	N/A
(RV07) 6025	(RV07) EOL	W In	8	Vitrified Clay	Yes	None	N/A	Circular Cracks	N/A	0	2.5	N/A	N/A	6.0	N/A
	(RV07) 6023	N Out	8	Vitrified Clay	No	None	N/A	Good	N/A	0	2.0	0.3	N/A	6.9	N/A
	(RV07) 6026	NW In	8	Vitrified Clay	No	Debris	1.0	Good	N/A	0	0.3	0.5	N/A	6.9	N/A
(RV07) 6026	(RV07) 6025	SE Out	8	Vitrified Clay	No	Debris	6.0	Good	N/A	0	4.5	0.5	N/A	6.6	N/A
	(RV07) 6027	W In	6	Vitrified Clay	No	Debris	2.5	Good	N/A	0	3.0	0.3	N/A	6.6	N/A
	(RV07) 6035	S In	8	Vitrified Clay	No	None	N/A	Good	N/A	0	5.0	0.3	N/A	6.6	N/A
(RV07) 6029	(RV07) 6018	N Out	8	Vitrified Clay	No	None	N/A	Good	N/A	0	5.0	0.5	N/A	6.4	N/A
	(RV07) 6030	W In	8	Vitrified Clay	No	None	N/A	Good	N/A	0	5.5	0.2	N/A	6.3	N/A
	(RV07) 6122	S In	8	PVC	No	None	N/A	Good	N/A	0	0.3	1.0	N/A	5.5	N/A

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		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)				Depth (in.)	Velocity (fps)			
(RV07) 6030	(RV07) 6029	E Out	8	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	0.7	N/A	7.0	N/A
	(RV07) 6031	W In	8	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	0.5	N/A	7.1	N/A
	(RV07) SVC	N In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.5	N/A	6.1	N/A
	(RV07) SVC	S In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	1.0	N/A	6.1	N/A
(RV07) 6031	(RV07) 6030	E Out	8	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	6.7	N/A
	(RV07) 6032A	W In	8	Vitrified Clay	Yes	None	N/A	Circular Cracks	N/A	0	1.0	0.5	N/A	6.7	N/A
	(RV07) SVC	N In	6	Vitrified Clay	Yes	None	N/A	Circular Cracks	N/A	0	0.1	0.3	N/A	5.7	N/A
	(RV07) SVC	S In	6	Vitrified Clay	Yes	None	N/A	Circular Cracks	N/A	0	0.3	1.0	N/A	5.7	N/A
(RV07) 6032	(RV07) 6031A	E Out	8	Vitrified Clay	Yes	None	N/A	Circular Cracks	N/A	0	0.8	0.4	N/A	6.2	N/A
	(RV07) 6033	W In	8	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	0.3	N/A	6.2	N/A
	(RV07) EOL	S In	6	Vitrified Clay	Yes	None	N/A	Broken Pipe	N/A	0	0.3	1.0	N/A	5.2	N/A
	(RV07) SVC	N In	6	Vitrified Clay	Yes	None	N/A	Broken Pipe	N/A	0	0.1	0.1	N/A	5.2	N/A
(RV07) 6033	(RV07) 6032	E Out	8	Vitrified Clay	No	None	N/A	Good	N/A	0	1.8	0.2	N/A	6.0	N/A
	(RV07) 6034	SE In	8	Vitrified Clay	Yes	Debris	2.8	Circular Cracks	N/A	0	3.0	N/A	N/A	5.9	N/A
	(RV07) EOL	W In	6	Vitrified Clay	Yes	None	N/A	Circular Cracks	N/A	0	3.0	0.1	N/A	5.9	N/A
(RV07) 6034	(RV07) 6033	NW Out	8	Vitrified Clay	Yes	None	N/A	Broken Pipe	N/A	0	1.0	0.3	N/A	4.4	N/A
	(RV07) EOL	W In	6	Vitrified Clay	Yes	None	N/A	Broken Pipe	N/A	0	0.3	0.5	N/A	4.3	N/A
	(RV07) SVC	SW In	4	Vitrified Clay	Yes	None	N/A	Broken Pipe	N/A	0	0.1	N/A	N/A	3.9	N/A
	(RV07) SVC	SE In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	3.6	N/A
(RV07) 6035	(RV07) 6026	N Out	8	Vitrified Clay	Yes	None	N/A	Circular Cracks	N/A	0	0.3	0.5	N/A	5.1	N/A
	(RV07) 6036	W In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	0.5	N/A	5.1	N/A
	(RV07) EOL	S In	8	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	N/A	N/A	5.0	N/A
(RV07) 6036	(RV07) 6035	E Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	0.3	N/A	5.2	N/A

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

Visual Pipe Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition				Line Grade	Visual Infiltr. (gpm)	Observed		Cleaning Method	Rim to Invert (ft.)	Rim to Crown (ft.)
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)	Structural Condition			Depth (in.)	Velocity (fps)			
(RV07) 6036	(RV07) 6037	W In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	0.3	N/A	5.2	N/A
	(RV07) SVC	S In	6	Vitrified Clay	Yes	None	N/A	Longitudinal Cracks	N/A	0	N/A	N/A	N/A	5.0	N/A
(RV07) 6037	(RV07) 6036	E Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	3.6	N/A
(RV07) 6040	(RV07) 1648	E Out	8	PVC	No	None	N/A	Good	N/A	0	1.0	1.0	N/A	7.3	N/A
	(RV07) 6395	NW In	6	PVC	No	Debris	6.0	Collapsed Pipe	N/A	0	0.3	0.3	N/A	5.0	N/A
	(RV07) 6397	SW In	6	PVC	No	None	N/A	Good	N/A	0	1.0	0.3	N/A	7.2	N/A
(RV07) 6042	(RV07) 6041	W Out	8	Vitrified Clay	Yes	None	N/A	Broken Pipe	N/A	0	0.1	N/A	N/A	4.9	N/A
	(RV07) EOL	E In	8	Vitrified Clay	Yes	None	N/A	Broken Pipe	N/A	0	N/A	N/A	N/A	4.7	N/A
	(RV07) EOL	S In	6	Vitrified Clay	No	Mud	5.0	Offset	N/A	0	N/A	N/A	N/A	4.2	N/A
	(RV07) SVC	N In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	4.7	N/A
	(RV07) SVC	SE In	4	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	3.8	N/A
(RV07) 6096	(RV07) 6095	W Out	8	Vitrified Clay	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	4.1	N/A
	(RV07) SVC	S In	4	Vitrified Clay	Yes	Debris	0.3	Circular Cracks	N/A	0	0.1	0.1	N/A	3.1	N/A
	(RV07) SVC	NE In	4	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	3.1	N/A
(RV07) 6100	(RV07) 6101	E In	8	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	0.5	N/A	7.2	N/A
	(RV07) 6105	W Out	8	Vitrified Clay	No	None	N/A	Good	N/A	0	1.5	1.5	N/A	7.2	N/A
	(RV07) SVC	NE In	4	PVC	No	None	N/A	Good	N/A	0	1.0	2.0	N/A	6.4	N/A
	(RV07) SVC	SE In	4	Vitrified Clay	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	6.3	N/A
	(RV07) SVC	SW In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	4.8	N/A
(RV07) 6101	(RV07) 6100	W Out	8	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	1.0	N/A	5.4	N/A
	(RV07) SVC	NE In	4	PVC	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	4.4	N/A
	(RV07) SVC	SW In	4	PVC	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	4.6	N/A
	(RV07) SVC	NW In	4	PVC	No	None	N/A	Good	N/A	0	0.1	0.2	N/A	3.6	N/A

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

Visual Pipe Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition		Structural Condition	Line Grade	Visual Infiltr. (gpm)	Observed		Cleaning Method	Rim to Invert (ft.)	Rim to Crown (ft.)	
		Dir.	Diam (in.)	Construction	Root Growth	Depth Type (in.)				Depth (in.)	Velocity (fps)				
(RV07) 6101	(RV07) SVC	SE In	4	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	4.5	N/A
(RV07) 6103	(RV07) 6102	W Out	8	Vitrified Clay	No	Debris	6.0	Offset	N/A	0	6.0	0.1	N/A	7.3	N/A
	(RV07) 6104	E In	8	Vitrified Clay	No	None	N/A	Good	N/A	0	5.0	N/A	N/A	7.3	N/A
	(RV07) SVC	N In	4	Vitrified Clay	No	None	N/A	Good	N/A	0	0.2	0.3	N/A	5.4	N/A
	(RV07) SVC	S In	4	Vitrified Clay	No	None	N/A	Offset	N/A	0	N/A	N/A	N/A	5.8	N/A
	(RV07) SVC	SE In	4	Vitrified Clay	No	None	N/A	Broken Pipe	N/A	0	1.0	1.0	N/A	5.5	N/A
(RV07) 6104	(RV07) 6103	W Out	8	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.5	N/A	6.6	N/A
	(RV07) SVC	NE In	4	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	5.8	N/A
	(RV07) SVC	NW In	4	PVC	No	None	N/A	Good	N/A	0	0.5	0.3	N/A	5.8	N/A
	(RV07) SVC	SE In	4	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	5.8	N/A
	(RV07) SVC	SW In	4	PVC	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	4.2	N/A
(RV07) 6106	(RV07) 6000	W Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.2	N/A	4.0	N/A
	(RV07) 6107	E In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.2	N/A	4.0	N/A
	(RV07) SVC	SE In	4	Vitrified Clay	Yes	Debris	1.0	Circular Cracks	N/A	0	0.1	0.2	N/A	3.3	N/A
	(RV07) SVC	NE In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	3.6	N/A
(RV07) 6107	(RV07) 6106	W Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.1	N/A	4.0	N/A
	(RV07) EOL	E In	6	Vitrified Clay	No	Debris	0.3	Good	N/A	0	N/A	N/A	N/A	3.9	N/A
	(RV07) SVC	N In	4	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	3.2	N/A
	(RV07) SVC	NE In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	3.2	N/A
	(RV07) SVC	SE In	4	PVC	No	None	N/A	Good	N/A	0	0.1	0.3	N/A	3.3	N/A
(RV07) 6109	(RV07) 6108	W Out	8	Vitrified Clay	No	Debris	1.5	Good	N/A	0	3.0	0.5	N/A	3.7	N/A
	(RV07) 6110	E In	8	Vitrified Clay	No	Debris	3.5	Good	N/A	0	4.0	0.8	N/A	3.7	N/A
	(RV07) SVC	NE In	4	Vitrified Clay	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	3.1	N/A

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

Visual Pipe Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition		Structural Condition	Line Grade	Visual Infiltr. (gpm)	Observed		Cleaning Method	Rim to Invert (ft.)	Rim to Crown (ft.)		
		Dir.	Diam (in.)	Construction	Root Growth	Depth Type (in.)				Depth (in.)	Velocity (fps)					
(RV07) 6109	(RV07) SVC	SE In	4	Vitrified Clay	No	Debris	4.0	Offset	N/A	0	0.2	0.3	N/A	3.3	N/A	
(RV07) 6110	(RV07) 6109	W Out	8	Vitrified Clay	No	Debris	1.0	Good	N/A	0	1.5	0.3	N/A	3.6	N/A	
	(RV07) 6432	SE In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.8	0.3	N/A	2.8	N/A	
	(RV07) SVC	NE In	4	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	3.5	N/A	
	(RV07) SVC	NW In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	2.7	N/A	
	(RV07) 6112	(RV07) 6111	W Out	8	Vitrified Clay	No	None	N/A	Good	N/A	0	4.5	N/A	N/A	2.6	N/A
(RV07) 6112	(RV07) 6113	E In	8	Vitrified Clay	No	None	N/A	Good	N/A	0	4.0	N/A	N/A	2.5	N/A	
	(RV07) SVC	SE In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	2.3	N/A	
	(RV07) 6113	W Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.2	N/A	N/A	3.0	N/A	
	(RV07) SVC	SE In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	2.9	N/A	
	(RV07) 6117	(RV07) 6114	N Out	6	Vitrified Clay	Yes	Debris	5.5	Circular Cracks	N/A	0	1.5	0.5	N/A	4.1	N/A
(RV07) 6117	(RV07) 6118	E In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	4.0	N/A	
	(RV07) SVC	SE In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	4.0	N/A	
	(RV07) SVC	SW In	4	PVC	No	Debris	2.5	Good	N/A	0	0.3	0.1	N/A	4.0	N/A	
	(RV07) 6118	(RV07) 6117	W Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	5.0	N/A
	(RV07) SVC	E In	4	PVC	No	None	N/A	Good	N/A	0	0.3	1.0	N/A	4.3	N/A	
(RV07) 6118	(RV07) SVC	SW In	4	PVC	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	4.1	N/A	
	(RV07) SVC	N In	4	PVC	No	None	N/A	Good	N/A	0	0.8	1.0	N/A	4.3	N/A	
	(RV07) SVC	SE In	4	PVC	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	4.2	N/A	
	(RV07) 6119	(RV07) 6144	SW Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.3	N/A	5.8	N/A
	(RV07) 6146	NE In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	0.2	N/A	5.8	N/A	
(RV07) 6119	(RV07) SVC	SE In	4	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	5.4	N/A	
	(RV07) SVC	W In	4	PVC	No	None	N/A	Good	N/A	0	0.1	0.2	N/A	3.4	N/A	

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

Visual Pipe Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Structural Condition	Line Grade	Visual Infiltr. (gpm)	Observed		Cleaning Method	Rim to Invert (ft.)	Rim to Crown (ft.)
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)				Depth (in.)	Velocity (fps)			
(RV07) 6122	(RV07) 6029	N Out	8	PVC	No	None	N/A	Good	N/A	0	0.2	0.5	N/A	5.9	N/A
	(RV07) SVC	SE In	4	PVC	No	None	N/A	Good	N/A	0	0.1	0.3	N/A	5.0	N/A
	(RV07) SVC	E In	4	PVC	No	None	N/A	Good	N/A	0	0.2	0.2	N/A	5.5	N/A
(RV07) 6137	(RV07) 6138	S Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	5.3	N/A
	(RV07) EOL	NE In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	N/A	N/A	5.3	N/A
(RV07) 6138	(RV07) 6136	W Out	8	Vitrified Clay	Yes	Debris	4.0	Circular Cracks	N/A	0	0.5	1.0	N/A	14.5	N/A
	(RV07) 6139	S In	8	Vitrified Clay	No	Debris	3.0	Broken Pipe	N/A	0	0.8	0.5	N/A	14.5	N/A
	(RV07) SVC	N In	6	PVC	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	0.0	7.3
	(RV07) SVC	SE In	4	PVC	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	7.3	N/A
(RV07) 6139	(RV07) SVC	SW In	4	PVC	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	5.6	N/A
	(RV07) 6138	N Out	8	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	1.0	N/A	10.4	N/A
	(RV07) 6141	E In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	10.1	N/A
	(RV07) 6142	S In	8	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	10.3	N/A
(RV07) 6140	(RV07) SVC	SW In	4	PVC	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	3.8	N/A
	(RV07) 6141	SW Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.3	0.5	N/A	5.8	N/A
	(RV07) SVC	SW In	4	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.1	N/A	4.9	N/A
	(RV07) SVC	NE In	4	PVC	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	5.0	N/A
	(RV07) SVC	N In	4	PVC	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	4.9	N/A
(RV07) 6141	(RV07) SVC	NW In	4	Vitrified Clay	No	Mud	0.3	Broken Pipe	N/A	0	0.3	0.3	N/A	4.9	N/A
	(RV07) 6139	W Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	2.0	0.5	N/A	6.0	N/A
	(RV07) 6140	NE In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.5	0.8	N/A	5.9	N/A
(RV07) 6142	(RV07) SVC	SE In	4	Vitrified Clay	No	None	N/A	Broken Pipe	N/A	0	0.1	0.1	N/A	4.2	N/A
	(RV07) 6139	N Out	8	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	1.0	N/A	7.2	N/A

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

Visual Pipe Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Structural Condition	Line Grade	Visual Infiltr. (gpm)	Observed		Cleaning Method	Rim to Invert (ft.)	Rim to Crown (ft.)
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)				Depth (in.)	Velocity (fps)			
(RV07) 6142	(RV07) 6143	SE In	8	Vitrified Clay	No	None	N/A	Good	N/A	0	2.0	0.5	N/A	7.2	N/A
	(RV07) SVC	SW In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	3.9	N/A
	(RV07) SVC	W In	4	PVC	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	7.1	N/A
(RV07) 6143	(RV07) 6142	NW Out	8	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.5	N/A	7.7	N/A
	(RV07) 6144	N In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.2	0.3	N/A	7.6	N/A
	(RV07) 6150	E In	8	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	0.4	N/A	7.4	N/A
	(RV07) SVC	S In	4	Vitrified Clay	No	None	N/A	Good	N/A	0	0.1	0.2	N/A	5.1	N/A
(RV07) 6144	(RV07) 6119	NE In	6	Vitrified Clay	Yes	None	N/A	Longitudinal Cracks	N/A	0	0.3	0.2	N/A	6.9	N/A
	(RV07) 6143	S Out	6	Vitrified Clay	Yes	Debris	1.0	Circular Cracks	N/A	0	0.2	0.1	N/A	7.0	N/A
	(RV07) SVC	NW In	4	PVC	No	None	N/A	Broken Pipe	N/A	0	0.1	0.1	N/A	5.3	N/A
(RV07) 6146	(RV07) 6119	SW Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	5.6	N/A
	(RV07) SVC	SE In	4	Vitrified Clay	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	4.9	N/A
	(RV07) SVC	NW In	4	PVC	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	3.2	N/A
(RV07) 6147	(RV07) 6148	S Out	6	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	4.9	N/A
	(RV07) SVC	NW In	4	PVC	No	Debris	1.0	Good	N/A	0	N/A	N/A	N/A	4.2	N/A
	(RV07) SVC	NE In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	4.2	N/A
(RV07) 6148	(RV07) 6147	N In	6	PVC	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	5.6	N/A
	(RV07) 6149	S Out	6	PVC	No	None	N/A	Good	N/A	0	0.2	0.1	N/A	5.6	N/A
	(RV07) SVC	NE In	4	PVC	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	4.8	N/A
(RV07) 6149	(RV07) 6148	N In	6	PVC	No	None	N/A	Good	N/A	0	0.3	0.2	N/A	3.8	N/A
	(RV07) 6150	SW Out	8	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.3	N/A	3.9	N/A
	(RV07) SVC	NE In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	3.7	N/A
	(RV07) SVC	SE In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	3.6	N/A

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

Visual Pipe Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Structural Condition	Line Grade	Visual Infiltr. (gpm)	Observed		Cleaning Method	Rim to Invert (ft.)	Rim to Crown (ft.)
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)				Depth (in.)	Velocity (fps)			
(RV07) 6150	(RV07) 6143	W Out	8	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.3	N/A	4.1	N/A
	(RV07) 6149	NE In	8	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.3	N/A	4.0	N/A
	(RV07) SVC	E In	6	Vitrified Clay	No	None	N/A	Offset	N/A	0	N/A	N/A	N/A	4.0	N/A
	(RV07) SVC	SW In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	3.2	N/A
(RV07) 6354	(RV07) 6041	SE Out	6	PVC	No	None	N/A	Good	N/A	0	0.5	0.9	N/A	5.0	N/A
	(RV07) 6355	W In	6	PVC	No	None	N/A	Good	N/A	0	1.0	0.5	N/A	4.9	N/A
(RV07) 6355	(RV07) 6354	E Out	6	PVC	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	5.8	N/A
	(RV07) 6356	S In	6	PVC	No	None	N/A	Good	N/A	0	0.2	0.2	N/A	5.6	N/A
	(RV07) 6358	W In	6	PVC	No	None	N/A	Good	N/A	0	0.3	0.7	N/A	5.6	N/A
	(RV07) SVC	NW In	4	PVC	No	None	N/A	Good	N/A	0	0.2	0.2	N/A	5.4	N/A
(RV07) 6356	(RV07) 6355	N Out	6	PVC	No	None	N/A	Good	N/A	0	2.0	0.1	N/A	4.8	N/A
	(RV07) 6357	W In	6	PVC	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	3.9	N/A
	(RV07) 6373	SE In	6	PVC	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	2.9	N/A
	(RV07) SVC	NW In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	3.6	N/A
(RV07) 6357	(RV07) 6356	E Out	6	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	3.0	N/A
	(RV07) SVC	NW In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	3.0	N/A
	(RV07) SVC	SW In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	2.9	N/A
(RV07) 6358	(RV07) 6355	E Out	6	PVC	No	None	N/A	Good	N/A	0	0.3	0.5	N/A	3.7	N/A
	(RV07) 6359	S In	6	PVC	No	None	N/A	Good	N/A	0	0.2	0.5	N/A	3.7	N/A
	(RV07) 6360	N In	6	PVC	No	None	N/A	Good	N/A	0	0.5	0.3	N/A	3.7	N/A
	(RV07) SVC	NW In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	3.7	N/A
(RV07) 6359	(RV07) 6358	N Out	6	PVC	No	None	N/A	Good	N/A	0	0.2	N/A	N/A	2.8	N/A
	(RV07) SVC	SE In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	2.7	N/A

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

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		Dir.	Diam (in.)	Construction	Root Growth	Depth Type (in.)				Depth (in.)	Velocity (fps)				
(RV07) 6360	(RV07) 6358	S Out	6	PVC	No	None	N/A	Good	N/A	0	1.8	N/A	N/A	3.7	N/A
	(RV07) SVC	SW In	4	PVC	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	3.6	N/A
	(RV07) SVC	NW In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	3.5	N/A
	(RV07) SVC	E In	4	PVC	No	None	N/A	Good	N/A	0	0.5	N/A	N/A	3.6	N/A
(RV07) 6385A	(RV07) 1467A	NW In	10	Vitrified Clay	No	None	N/A	Good	N/A	0	3.0	0.5	N/A	5.9	N/A
	(RV07) 6385	SE Out	10	Vitrified Clay	Yes	Debris	3.0	Longitudinal Cracks	N/A	0	2.0	0.5	N/A	6.0	N/A
(RV07) 6388	(RV07) 6387	N In	10	Vitrified Clay	No	None	N/A	Good	N/A	0	4.5	1.0	N/A	9.1	N/A
	(RV07) 6389	S Out	10	Vitrified Clay	No	None	N/A	Good	N/A	0	5.0	1.2	N/A	9.1	N/A
	(RV07) EOL	E In	8	Concrete	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	8.0	N/A
	(RV07) SVC	W In	8	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.3	N/A	7.7	N/A
(RV07) 6393	(RV07) 6394	E Out	6	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	4.8	N/A
	(RV07) SVC	NE In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	4.8	N/A
	(RV07) SVC	NW In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	4.8	N/A
(RV07) 6394	(RV07) 6393	W In	6	PVC	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	5.0	N/A
	(RV07) 6395	E Out	6	PVC	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	5.6	N/A
	(RV07) SVC	SW In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	5.0	N/A
	(RV07) SVC	NW In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	4.9	N/A
	(RV07) SVC	NE In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	5.0	N/A
	(RV07) SVC	SE In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	5.1	N/A
(RV07) 6395	(RV07) 6040	SE Out	6	PVC	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	5.0	N/A
	(RV07) 6394	W In	6	PVC	No	None	N/A	Good	N/A	0	1.3	0.5	N/A	5.0	N/A
	(RV07) SVC	NW In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	4.9	N/A
	(RV07) SVC	SW In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	5.0	N/A

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		Dir.	Diam (in.)	Construction	Root Growth	Depth Type (in.)				Depth (in.)	Velocity (fps)				
(RV07) 6396	(RV07) 6397	E Out	6	PVC	No	None	N/A	Good	N/A	0	0.3	0.5	N/A	5.7	N/A
	(RV07) SVC	N In	4	PVC	No	None	N/A	Good	N/A	0	0.2	0.5	N/A	5.6	N/A
	(RV07) SVC	SE In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	5.3	N/A
	(RV07) SVC	W In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	2.8	N/A
(RV07) 6397	(RV07) 6040	NE Out	6	PVC	No	None	N/A	Good	N/A	0	2.0	0.5	N/A	7.0	N/A
	(RV07) SVC	NW In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	6.9	N/A
	(RV07) SVC	S In	4	PVC	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	6.7	N/A
	(RV07) SVC	W In	6	PVC	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	6.9	N/A
(RV07) 6427	(RV07) 6016	S Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.2	N/A	5.6	N/A
	(RV07) SVC	W In	4	Vitrified Clay	No	None	N/A	Good	N/A	0	0.2	0.3	N/A	4.5	N/A
	(RV07) SVC	E In	4	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	4.4	N/A
(RV07) 6432	(RV07) 6110	NW Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.2	0.3	N/A	3.7	N/A
	(RV07) SVC	SE In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.3	N/A	3.7	N/A
(RV07) 6435	(RV07) 6436	S Out	6	PVC	No	None	N/A	Good	N/A	0	0.8	0.5	N/A	6.1	N/A
	(RV07) SVC	N In	4	Cast Iron	No	None	N/A	Good	N/A	0	0.3	1.0	N/A	5.8	N/A
	(RV07) SVC	NE In	4	Cast Iron	No	None	N/A	Good	N/A	0	0.5	0.5	N/A	5.9	N/A
(RV07) 6436	(RV07) 6115	SW Out	6	Other	Yes	Debris	5.0	Offset	N/A	0	1.0	0.1	N/A	10.4	N/A
	(RV07) 6435	N In	6	Vitrified Clay	No	None	N/A	Circular Cracks	N/A	0	1.3	0.5	N/A	10.4	N/A
(RV07) 6441	(RV07) 6472	SE Out	8	PVC	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	6.7	N/A
	(RV07) 6474	NW In	8	PVC	No	None	N/A	Good	N/A	0	1.0	0.5	N/A	6.3	N/A
	(RV07) SVC	SW In	4	PVC	No	None	N/A	Good	N/A	0	0.3	0.5	N/A	6.2	N/A
	(RV07) SVC	N In	4	PVC	No	None	N/A	Good	N/A	0	0.3	1.0	N/A	6.1	N/A
(RV07) 6461	(RV07) 6462	SE Out	6	Cast Iron	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	3.7	N/A

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		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)				Depth (in.)	Velocity (fps)			
(RV07) 6461	(RV07) SVC	NE In	4	Cast Iron	No	None	N/A	Good	N/A	0	0.1	0.2	N/A	3.7	N/A
	(RV07) SVC	NW In	4	Cast Iron	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	3.6	N/A
(RV07) 6462	(RV07) 6461	NW In	6	Cast Iron	No	None	N/A	Good	N/A	0	0.3	0.3	N/A	5.6	N/A
	(RV07) 6464	S Out	8	Cast Iron	No	None	N/A	Good	N/A	0	0.3	0.3	N/A	5.7	N/A
	(RV07) SVC	N In	6	Cast Iron	No	None	N/A	Good	N/A	0	0.3	0.1	N/A	5.6	N/A
(RV07) 6465	(RV07) 6340	N Out	8	Cast Iron	No	None	N/A	Good	N/A	0	0.3	0.1	N/A	1.9	N/A
	(RV07) SVC	SW In	4	PVC	No	None	N/A	Good	N/A	0	0.1	0.2	N/A	1.8	N/A
(RV07) 6467	(RV07) 6466	W In	36	PVC	No	None	N/A	Good	N/A	0	12.0	2.5	N/A	11.6	N/A
	(RV07) 6469	S Out	36	PVC	No	None	N/A	Good	N/A	0	12.0	2.5	N/A	11.7	N/A
(RV07) 6468	(RV07) 6464	NE Out	8	Cast Iron	No	None	N/A	Good	N/A	0	0.1	0.5	N/A	2.1	N/A
	(RV07) SVC	E In	4	PVC	No	None	N/A	Good	N/A	0	0.1	0.5	N/A	1.8	N/A
(RV07) 6469	(RV07) 6467	N In	36	PVC	No	None	N/A	Good	N/A	0	12.0	2.5	N/A	10.8	N/A
	(RV07) 6472	SW Out	36	PVC	No	None	N/A	Good	N/A	0	12.0	2.5	N/A	10.9	N/A
(RV07) 6470	(RV07) 6474	SE Out	6	PVC	No	None	N/A	Good	N/A	0	0.1	0.3	N/A	4.6	N/A
	(RV07) SVC	SW In	4	PVC	No	None	N/A	Good	N/A	0	0.3	0.5	N/A	4.5	N/A
	(RV07) SVC	NW In	4	PVC	No	None	N/A	Good	N/A	0	0.1	N/A	N/A	4.6	N/A
(RV07) 6471	(RV07) 6474	NE Out	6	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	5.2	N/A
	(RV07) SVC	NW In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	4.7	N/A
	(RV07) SVC	SW In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	4.6	N/A
(RV07) 6474	(RV07) 6441	SE Out	8	PVC	No	None	N/A	Good	N/A	0	0.3	0.5	N/A	5.1	N/A
	(RV07) 6470	NW In	6	PVC	No	None	N/A	Good	N/A	0	0.2	0.5	N/A	5.1	N/A
	(RV07) 6471	SW In	6	PVC	No	None	N/A	Good	N/A	0	1.5	N/A	N/A	5.1	N/A
	(RV07) SVC	N In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	4.9	N/A

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		Dir.	Diam (in.)	Construction	Root Growth	Depth Type (in.)				Depth (in.)	Velocity (fps)				
(RV07) 6480	(RV07) 6481	SW Out	8	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	3.5	N/A
	(RV07) SVC	NE In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	3.5	N/A
(RV07) 6481	(RV07) 6480	NE In	8	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	5.7	N/A
	(RV07) 6482	SE Out	8	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	5.8	N/A
	(RV07) SVC	NW In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	5.5	N/A
(RV07) 6482	(RV07) 6483	S Out	8	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	5.7	N/A
	(RV07) SVC	NE In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	5.4	N/A
	(RV07) SVC	NW In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	5.4	N/A
(RV07) 6483	(RV07) 6482	N In	8	PVC	No	None	N/A	Good	N/A	0	0.3	0.1	N/A	5.8	N/A
	(RV07) 6484	E Out	8	PVC	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	6.0	N/A
	(RV07) SVC	NW In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	6.0	N/A
	(RV07) SVC	SW In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	5.5	N/A
(RV07) 6485	(RV07) 6039	W Out	8	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	7.5	N/A
	(RV07) EOL	SE In	8	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	7.5	N/A
(RV07) 6487	(RV07) 6486	SW Out	12	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	5.4	N/A
	(RV07) EOL	N In	12	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	5.4	N/A
(RV07) 6488	(RV07) 6486	SE Out	8	PVC	No	None	N/A	Good	N/A	0	0.1	N/A	N/A	9.1	N/A
	(RV07) SVC	NW In	4	PVC	No	Future	0.3	Good	N/A	0	N/A	N/A	N/A	8.9	N/A
	(RV07) SVC	E In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	8.8	N/A
(RV07) 6489	(RV07) 6488	SE Out	8	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	9.0	N/A
	(RV07) EOL	NW In	8	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	9.0	N/A
	(RV07) SVC	NE In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	8.6	N/A
	(RV07) SVC	SW In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	8.6	N/A

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		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)	Depth (in.)				Velocity (fps)				
Total Segments 391		Good	334	Long Crack	391	Collapsed	1	Flush	0	Jet	0	Total Length to Clean		Root Control	0	
Total Footage		Broken	15	Circular Crac	26	N/A	1					Bucket	0			
(RV14) 1003	(RV14) 1008	NE Out	21	Vitrified Clay	No	None	N/A	Good	N/A	0	7.0	2.0	N/A	11.6	N/A	
	(RV14) 1009	SE In	10	PVC	No	None	N/A	Good	N/A	0	1.0	1.5	N/A	10.6	N/A	
	(RV14) 1012	SW In	21	Vitrified Clay	No	None	N/A	Good	N/A	0	7.0	2.0	N/A	11.1	N/A	
(RV14) 1005	(RV14) 1051	SE Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	0.8	N/A	4.4	N/A	
	(RV14) 1054	NW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	0.8	N/A	4.4	N/A	
(RV14) 1008	(RV14) 1003	SW In	21	Vitrified Clay	No	None	N/A	Good	N/A	0	6.0	2.0	N/A	7.3	N/A	
	(RV14) 2860	NE Out	21	Vitrified Clay	No	None	N/A	Good	N/A	0	7.0	1.7	N/A	7.3	N/A	
(RV14) 1009	(RV14) 1003	NW Out	10	PVC	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	7.7	N/A	
	(RV14) 1013	SE In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.8	N/A	7.3	N/A	
	(RV14) plug	SW In	10	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	7.5	N/A	
	(RV14) plug	NE In	10	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	7.5	N/A	
	(RV14) plug	NW In	4	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	5.7	N/A	
(RV14) 1012	(RV14) 1003	NE Out	20	Vitrified Clay	No	None	N/A	Good	N/A	0	5.0	2.5	N/A	7.9	N/A	
	(RV14) 1022	SW In	24	Cast Iron	No	None	N/A	Good	N/A	0	6.5	2.0	N/A	7.9	N/A	
	(RV14) EOL	NW In	8	PVC	No	None	N/A	Good	N/A	0	2.0	N/A	N/A	6.4	N/A	
(RV14) 1013	(RV14) 1009	NW Out	6	Vitrified Clay	No	Debris	1.0	Good	N/A	0	2.0	1.0	N/A	8.4	N/A	
	(RV14) 1014	SE In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.5	N/A	N/A	8.4	N/A	
	(RV14) EOL	SW In	6	Vitrified Clay	No	None	N/A	Circular Cracks	N/A	0	0.1	0.1	N/A	6.0	N/A	
	(RV14) EOL	NE In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	1.0	N/A	7.7	N/A	
(RV14) 1014	(RV14) 1013	NW Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	0.5	N/A	8.1	N/A	
	(RV14) 1015	SE In	6	Vitrified Clay	No	None	N/A	Circular Cracks	N/A	0	0.3	0.3	N/A	8.0	N/A	

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

Visual Pipe Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Structural Condition	Line Grade	Visual Infiltr. (gpm)	Observed		Cleaning Method	Rim to Invert (ft.)	Rim to Crown (ft.)
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)				Depth (in.)	Velocity (fps)			
(RV14) 1014	(RV14) EOL	SW In	6	Vitrified Clay	No	None	N/A	Broken Pipe	N/A	0	N/A	N/A	N/A	6.4	N/A
	(RV14) EOL	NE In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	N/A	N/A	8.1	N/A
(RV14) 1015	(RV14) 1014	NW Out	6	Vitrified Clay	No	Mud	1.0	Circular Cracks	N/A	0	N/A	N/A	N/A	4.5	N/A
	(RV14) EOL	SW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	4.2	N/A
	(RV14) EOL	NE In	6	Vitrified Clay	No	None	N/A	Broken Pipe	N/A	0	N/A	N/A	N/A	4.5	N/A
(RV14) 1022	(RV14) 1012	NE Out	27	Cast Iron	No	None	N/A	Good	N/A	0	6.5	1.5	N/A	10.7	N/A
	(RV14) 1030	SE In	27	Vitrified Clay	No	None	N/A	Good	N/A	0	6.5	1.5	N/A	10.5	N/A
(RV14) 1024	(RV14) 1025	SE In	6	PVC	No	None	N/A	Good	N/A	0	0.1	0.3	N/A	3.5	N/A
	(RV14) 1030	NW Out	10	PVC	No	None	N/A	Good	N/A	0	3.0	1.0	N/A	5.4	N/A
	(RV14) 1052	SW In	10	Vitrified Clay	No	None	N/A	Good	N/A	0	4.0	0.5	N/A	5.4	N/A
	(RV14) svc	NE In	4	PVC	No	None	N/A	Good	N/A	0	2.0	0.1	N/A	5.3	N/A
(RV14) 1025	(RV14) 1024	NW Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	0.3	N/A	3.5	N/A
	(RV14) 1026	SE In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.4	0.3	N/A	3.5	N/A
	(RV14) SVC	N In	2	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	2.8	N/A
(RV14) 1026	(RV14) 1026	NW Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	3.0	N/A
	(RV14) SVC	SW In	6	Vitrified Clay	No	None	N/A	Collapsed Pipe	N/A	0	N/A	N/A	N/A	2.5	N/A
(RV14) 1030	(RV14) 1022	NE Out	21	Vitrified Clay	No	None	N/A	Good	N/A	0	5.0	3.0	N/A	10.1	N/A
	(RV14) 1024	SE In	10	PVC	No	None	N/A	Good	N/A	0	1.0	2.5	N/A	9.1	N/A
	(RV14) 1031	NW In	18	Cast Iron	No	None	N/A	Good	N/A	0	5.0	1.5	N/A	9.6	N/A
	(RV14) 2822	SW In	18	Vitrified Clay	No	None	N/A	Good	N/A	0	5.0	3.5	N/A	9.5	N/A
(RV14) 1031	(RV14) 1030	SE Out	15	Vitrified Clay	No	None	N/A	Good	N/A	0	2.0	1.0	N/A	8.8	N/A
	(RV14) 1033	NW In	15	Vitrified Clay	No	None	N/A	Good	N/A	0	3.0	0.5	N/A	8.6	N/A
(RV14) 1032	(RV14) 1034	NW In	10	Vitrified Clay	Yes	None	N/A	Circular Cracks	N/A	0	2.0	2.0	N/A	5.8	N/A

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

Visual Pipe Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition		Structural Condition	Line Grade	Visual Infiltr. (gpm)	Observed		Cleaning Method	Rim to Invert (ft.)	Rim to Crown (ft.)	
		Dir.	Diam (in.)	Construction	Root Growth	Depth Type (in.)				Depth (in.)	Velocity (fps)				
(RV14) 1032	(RV14) 1058	SW In	12	Vitrified Clay	No	None	N/A	Good	N/A	0	6.0	1.0	N/A	6.0	N/A
	(RV14) svc	SE In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	5.0	N/A
	(RV14) T-CONN	NE Out	12	PVC	No	None	N/A	Good	N/A	0	3.0	1.5	N/A	6.1	N/A
(RV14) 1033	(RV14) 1032	E Out	15	Vitrified Clay	No	None	N/A	Good	N/A	0	1.5	0.5	N/A	8.9	N/A
	(RV14) 1036	W In	15	Vitrified Clay	No	None	N/A	Good	N/A	0	2.0	0.3	N/A	8.9	N/A
(RV14) 1034	(RV14) 1032	SE Out	10	Vitrified Clay	No	None	N/A	Good	N/A	0	2.0	1.5	N/A	5.2	N/A
	(RV14) 1036	NW In	10	Vitrified Clay	No	None	N/A	Good	N/A	0	2.0	1.5	N/A	5.2	N/A
(RV14) 1035	(RV14) 1033	SE Out	15	Vitrified Clay	No	None	N/A	Good	N/A	0	1.5	1.5	N/A	11.4	N/A
	(RV14) 1037	NW In	15	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	2.0	N/A	11.1	N/A
	(RV14) svc	NE In	4	PVC	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	3.8	N/A
(RV14) 1036	(RV14) 1034	SE Out	10	Vitrified Clay	No	None	N/A	Good	N/A	0	2.0	1.5	N/A	6.7	N/A
	(RV14) 1044	NW In	10	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	2.0	N/A	6.2	N/A
	(RV14) plug	NE In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	6.4	N/A
	(RV14) svc	SW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	4.9	N/A
(RV14) 1037	(RV14) 1035	S Out	15	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	1.0	N/A	14.2	N/A
	(RV14) 1038	N In	15	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	1.0	N/A	14.1	N/A
	(RV14) svc	SE In	4	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	3.8	N/A
	(RV14) svc	SW In	4	PVC	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	4.6	N/A
(RV14) 1038	(RV14) 1037	S Out	15	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	1.0	N/A	13.6	N/A
	(RV14) 1039	NW In	15	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	1.0	N/A	13.5	N/A
	(RV14) svc	SW In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	7.5	N/A
(RV14) 1040	(RV14) 1017	NW In	15	Vitrified Clay	No	N/A	N/A	N/A	N/A	0	1.0	1.0	N/A	8.9	N/A
	(RV14) 1039	SE Out	15	Vitrified Clay	No	N/A	N/A	N/A	N/A	0	1.8	1.2	N/A	8.9	N/A

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

Visual Pipe Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Structural Condition	Line Grade	Visual Infiltr. (gpm)	Observed		Cleaning Method	Rim to Invert (ft.)	Rim to Crown (ft.)
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)				Depth (in.)	Velocity (fps)			
(RV14) 1041	(RV14) 1017	SE Out	15	Vitrified Clay	No	None	N/A	Good	N/A	0	2.0	2.0	N/A	13.4	N/A
	(RV14) 1042	NW In	15	Vitrified Clay	No	None	N/A	Circular Cracks	N/A	N/A	2.0	2.0	N/A	13.4	N/A
(RV14) 1042	(RV14) 1041	SE Out	15	Vitrified Clay	No	Debris	9.0	Good	N/A	0	11.0	0.1	N/A	12.1	N/A
	(RV14) 1047	NW In	15	Vitrified Clay	No	Debris	9.0	Good	N/A	0	11.0	0.1	N/A	11.8	N/A
	(RV14) svc	S In	4	PVC	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	6.0	N/A
(RV14) 1043	(RV14) svc	SW In	6	Cast Iron	No	None	N/A	Good	N/A	0	0.5	2.0	N/A	5.1	N/A
	(RV14) 1042	SE Out	15	Vitrified Clay	No	Sludge	9.0	Good	N/A	0	N/A	N/A	N/A	5.3	N/A
(RV14) 1044	(RV14) UNK	NW In	10	Vitrified Clay	No	Debris	1.0	Good	N/A	0	N/A	N/A	N/A	4.1	N/A
	(RV14) 1036	SE Out	10	Vitrified Clay	No	None	N/A	Good	N/A	0	4.0	1.0	N/A	10.5	N/A
	(RV14) 1045	NW In	10	Vitrified Clay	No	None	N/A	Good	N/A	0	4.0	1.0	N/A	10.5	N/A
(RV14) 1045	(RV14) eol	NE In	6	PVC	No	None	N/A	Good	N/A	0	0.4	1.5	N/A	7.2	N/A
	(RV14) 1044	SE Out	10	Vitrified Clay	No	None	N/A	Good	N/A	0	3.0	1.0	N/A	8.4	N/A
	(RV14) 1046	NW In	10	Vitrified Clay	No	None	N/A	Good	N/A	0	3.0	1.0	N/A	8.3	N/A
	(RV14) plug	NE In	4	Other	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	5.0	N/A
(RV14) 1046	(RV14) plug	SW In	4	Other	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	5.6	N/A
	(RV14) 1045	SE Out	10	Vitrified Clay	No	None	N/A	Good	N/A	0	3.0	1.0	N/A	8.1	N/A
	(RV14) 1047	NW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	2.0	N/A	5.6	N/A
(RV14) 1047	(RV14) eol	SW In	10	Vitrified Clay	No	None	N/A	Good	N/A	0	2.0	1.0	N/A	7.9	N/A
	(RV14) 1046	SE Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	N/A	N/A	4.8	N/A
	(RV14) EOL	NW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	4.5	N/A
(RV14) 1050	(RV14) SVC	N In	4	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	4.3	N/A
	(RV14) 2824	SE Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	1.0	N/A	3.3	N/A
	(RV14) 2880	NW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	0.3	N/A	3.2	N/A

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

Visual Pipe Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition		Structural Condition	Line Grade	Visual Infiltr. (gpm)	Observed		Cleaning Method	Rim to Invert (ft.)	Rim to Crown (ft.)	
		Dir.	Diam (in.)	Construction	Root Growth	Depth Type (in.)				Depth (in.)	Velocity (fps)				
(RV14) 1051	(RV14) 1005	NW Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.3	N/A	3.9	N/A
	(RV14) 2880	SE In	6	Vitrified Clay	No	Debris	0.5	Good	N/A	0	1.0	0.1	N/A	4.0	N/A
(RV14) 1052	(RV14) 1005	SE In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.2	0.3	N/A	4.8	N/A
	(RV14) 1024	NE Out	10	Vitrified Clay	No	None	N/A	Good	N/A	0	1.5	2.0	N/A	4.8	N/A
	(RV14) 1054	SW In	10	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	2.0	N/A	4.8	N/A
	(RV14) plug	NW In	6	Vitrified Clay	Yes	None	N/A	Broken Pipe	N/A	0	N/A	N/A	N/A	4.6	N/A
(RV14) 1054	(RV14) 1052	NE Out	10	Vitrified Clay	No	None	N/A	Good	N/A	0	3.0	1.0	N/A	4.9	N/A
	(RV14) 1070	SW In	10	Vitrified Clay	No	None	N/A	Good	N/A	0	3.0	1.0	N/A	4.8	N/A
	(RV14) 2823	NW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.2	0.3	N/A	4.5	N/A
(RV14) 1056	(RV14) 1057	E Out	8	Cast Iron	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	2.9	N/A
	(RV14) SVC	NW In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	2.9	N/A
	(RV14) SVC	SW In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	2.8	N/A
(RV14) 1057	(RV14) 1056	W In	8	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	0.1	N/A	3.5	N/A
	(RV14) 1533	N Out	8	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	3.6	N/A
	(RV14) 1534	S In	8	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	3.6	N/A
(RV14) 1058	(RV14) 1032	NE Out	15	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	1.0	N/A	5.7	N/A
	(RV14) 1059	NW In	15	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	1.0	N/A	5.6	N/A
	(RV14) plug	SE In	4	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	5.3	N/A
	(RV14) svc	SW In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	3.5	N/A
	(RV14) svc	S In	4	Vitrified Clay	No	None	N/A	Good	N/A	0	0.2	0.2	N/A	4.9	N/A
(RV14) 1059	(RV14) 1058	SE Out	12	Vitrified Clay	No	Sludge	2.0	Good	N/A	0	4.0	1.0	N/A	6.0	N/A
	(RV14) 1060	NW In	6	Vitrified Clay	No	Sludge	3.0	Good	N/A	0	4.0	0.5	N/A	6.0	N/A
	(RV14) 1072	SW In	12	Vitrified Clay	No	Sludge	2.0	Good	N/A	0	3.0	0.5	N/A	5.9	N/A

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

Visual Pipe Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition		Structural Condition	Line Grade	Visual Infiltr. (gpm)	Observed		Cleaning Method	Rim to Invert (ft.)	Rim to Crown (ft.)	
		Dir.	Diam (in.)	Construction	Root Growth	Depth Type (in.)				Depth (in.)	Velocity (fps)				
(RV14) 1059	(RV14) svc	NE In	6	Cast Iron	No	None	N/A	Good	N/A	0	0.2	0.2	N/A	5.1	N/A
(RV14) 1060	(RV14) 1059	SE Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	2.0	1.0	N/A	5.8	N/A
	(RV14) 1061	NW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	2.3	0.8	N/A	5.8	N/A
	(RV14) EOL	SW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	5.4	N/A
(RV14) 1061	(RV14) 1060	SE Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	2.5	0.8	N/A	5.4	N/A
	(RV14) 1062	NW In	6	Vitrified Clay	No	None	N/A	Broken Pipe	N/A	0	2.0	0.7	N/A	5.4	N/A
(RV14) 1062	(RV14) 1061	SE Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	3.5	1.0	N/A	6.7	N/A
	(RV14) 1063	NW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	4.0	0.8	N/A	6.7	N/A
(RV14) 1063	(RV14) 1062	SE Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	3.0	1.4	N/A	8.6	N/A
	(RV14) 1063A	NW In	8	PVC	No	None	N/A	Good	N/A	0	4.0	1.0	N/A	8.4	N/A
	(RV14) SVC	SW In	4	PVC	No	None	N/A	Good	N/A	0	0.3	0.3	N/A	3.9	N/A
	(RV14) SVC	W In	6	PVC	No	None	N/A	Good	N/A	0	3.5	0.3	N/A	8.6	N/A
	(RV14) SVC	NE In	4	Vitrified Clay	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	5.8	N/A
(RV14) 1063A	(RV14) 1063	SE Out	8	PVC	No	None	N/A	Good	N/A	0	5.0	2.0	N/A	11.4	N/A
	(RV14) SVC	NW In	6	Cast Iron	No	None	N/A	Offset	N/A	0	2.0	3.0	N/A	11.1	N/A
	(RV14) SVC	SW In	8	Cast Iron	No	None	N/A	Offset	N/A	0	1.5	2.0	N/A	11.2	N/A
	(RV14) SVC	W In	8	Cast Iron	No	None	N/A	Good	N/A	0	1.5	3.0	N/A	11.6	N/A
(RV14) 1069	(RV14) 1070	NW Out	10	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	2.0	N/A	8.3	N/A
	(RV14) 1081	SW In	10	Vitrified Clay	No	None	N/A	Good	N/A	0	1.5	1.5	N/A	8.2	N/A
	(RV14) 1831	SE In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.1	0.2	N/A	3.9	N/A
(RV14) 1070	(RV14) 1054	NE Out	10	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	2.0	N/A	6.3	N/A
	(RV14) 1069	SE In	10	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	2.0	N/A	6.2	N/A
	(RV14) 1071	NW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	1.0	N/A	6.1	N/A

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

Visual Pipe Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition		Structural Condition	Line Grade	Visual Infiltr. (gpm)	Observed		Cleaning Method	Rim to Invert (ft.)	Rim to Crown (ft.)	
		Dir.	Diam (in.)	Construction	Root Growth	Depth Type (in.)				Depth (in.)	Velocity (fps)				
(RV14) 1070	(RV14) svc	SW In	8	Cast Iron	No	None	N/A	Good	N/A	0	0.5	0.5	N/A	6.2	N/A
(RV14) 1072	(RV14) 1059	NE Out	12	Vitrified Clay	No	None	N/A	Good	N/A	0	3.0	0.5	N/A	8.0	N/A
	(RV14) 1073	NW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.5	N/A	5.2	N/A
	(RV14) 1087	SW In	12	Vitrified Clay	No	None	N/A	Good	N/A	0	3.0	0.5	N/A	7.8	N/A
(RV14) 1073	(RV14) 1072	E Out	6	Vitrified Clay	No	Debris	1.0	Good	N/A	0	2.0	1.0	N/A	5.3	N/A
	(RV14) 1074	W In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	5.3	N/A
	(RV14) EOL	N In	6	Vitrified Clay	No	Mud	2.0	Good	N/A	0	N/A	N/A	N/A	5.1	N/A
(RV14) 1075	(RV14) 1074	E Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.3	N/A	3.6	N/A
	(RV14) 2847	SW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.2	0.1	N/A	3.4	N/A
	(RV14) EOL	W In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	0.1	N/A	3.6	N/A
(RV14) 1076	(RV14) 1075	SE Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	0.2	N/A	3.7	N/A
	(RV14) EOL	W In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	0.1	N/A	3.7	N/A
	(RV14) EOL	NW In	4	Cast Iron	No	None	N/A	Good	N/A	0	0.1	N/A	N/A	3.7	N/A
(RV14) 1078	(RV14) 1079	W Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	0.8	N/A	3.6	N/A
	(RV14) 1147	S In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	0.8	N/A	3.6	N/A
	(RV14) EOL	E In	6	Vitrified Clay	No	Mud	2.0	Collapsed Pipe	N/A	0	N/A	N/A	N/A	3.4	N/A
(RV14) 1079	(RV14) SVC	E In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.8	0.5	N/A	4.2	N/A
	(RV14) SVC	W Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.5	0.7	N/A	4.3	N/A
(RV14) 1080	(RV14) 1079	E In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.8	0.5	N/A	3.8	N/A
	(RV14) 1083	W Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	0.4	N/A	3.9	N/A
	(RV14) 1146	S In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.3	0.1	N/A	3.8	N/A
	(RV14) 1832	N In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.3	N/A	3.8	N/A
(RV14) 1081	(RV14) 1069	NE Out	10	Vitrified Clay	No	None	N/A	Good	N/A	0	1.5	1.0	N/A	3.2	N/A

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

Visual Pipe Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition				Line Grade	Visual Infiltr. (gpm)	Observed		Cleaning Method	Rim to Invert (ft.)	Rim to Crown (ft.)
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)	Structural Condition			Depth (in.)	Velocity (fps)			
(RV14) 1081	(RV14) 1083	SE In	10	Vitrified Clay	No	None	N/A	Good	N/A	0	1.5	1.2	N/A	3.2	N/A
(RV14) 1083	(RV14) 1080	E In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.5	0.5	N/A	4.4	N/A
	(RV14) 1081	NW Out	10	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	2.0	N/A	4.4	N/A
	(RV14) 1145	S In	8	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	2.0	N/A	4.3	N/A
(RV14) 1084	(RV14) 1805	S In	21	Vitrified Clay	No	None	N/A	Good	N/A	0	5.0	2.3	N/A	10.4	N/A
	(RV14) 2822	NE Out	21	Vitrified Clay	No	None	N/A	Good	N/A	0	7.0	2.0	N/A	10.4	N/A
(RV14) 1085	(RV14) 1084	N Out	21	Vitrified Clay	No	None	N/A	Good	N/A	0	5.0	2.0	N/A	10.1	N/A
	(RV14) 1086	W In	15	Vitrified Clay	No	None	N/A	Good	N/A	0	5.0	2.0	N/A	10.9	N/A
	(RV14) 2825	S In	12	Vitrified Clay	No	None	N/A	Good	N/A	0	5.0	2.0	N/A	9.7	N/A
(RV14) 1086	(RV14) 1085	E Out	15	Vitrified Clay	No	None	N/A	Good	N/A	0	2.0	1.5	N/A	7.9	N/A
	(RV14) 1088	NW In	15	Vitrified Clay	No	None	N/A	Good	N/A	0	4.0	1.0	N/A	7.8	N/A
(RV14) 1087	(RV14) 1072	NE Out	12	Vitrified Clay	No	None	N/A	Good	N/A	0	6.0	0.3	N/A	7.3	N/A
	(RV14) 1091	NW In	8	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	0.5	N/A	7.0	N/A
	(RV14) plug	SW In	12	Vitrified Clay	No	None	N/A	Good	N/A	0	6.0	N/A	N/A	7.0	N/A
(RV14) 1088	(RV14) 1086	SE Out	15	Vitrified Clay	No	None	N/A	Good	N/A	0	5.0	1.0	N/A	7.8	N/A
	(RV14) 1089	NW In	15	Vitrified Clay	No	None	N/A	Good	N/A	0	5.0	1.0	N/A	7.7	N/A
	(RV14) 1119	SW In	12	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.5	N/A	7.7	N/A
(RV14) 1091	(RV14) 1088	SE Out	8	Vitrified Clay	Yes	Debris	1.0	Longitudinal Cracks	N/A	N/A	1.0	0.5	N/A	5.5	N/A
	(RV14) 1094	NW In	8	Vitrified Clay	No	None	N/A	Circular Cracks	N/A	0	1.0	0.3	N/A	5.6	N/A
	(RV14) SVC	S In	6	PVC	Yes	None	N/A	Circular Cracks	N/A	N/A	N/A	N/A	N/A	2.4	N/A
(RV14) 1092	(RV14) 2011	NW Out	15	Vitrified Clay	No	None	N/A	Good	N/A	0	3.0	2.0	N/A	7.6	N/A
	(RV14) 2848	SE In	15	Vitrified Clay	No	None	N/A	Good	N/A	0	3.0	2.0	N/A	7.5	N/A
	(RV14) UNK	N Unk	0	Other	No	None	N/A	Offset	N/A	0	N/A	N/A	N/A	0.0	N/A

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

Visual Pipe Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition				Line Grade	Visual Infiltr. (gpm)	Observed		Cleaning Method	Rim to Invert (ft.)	Rim to Crown (ft.)
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)	Structural Condition			Depth (in.)	Velocity (fps)			
(RV14) 1093	(RV14) 1092	NE Out	8	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	0.3	N/A	4.0	N/A
	(RV14) 1123	S In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	0.3	N/A	4.0	N/A
	(RV14) EOL	SE In	6	Other	No	None	N/A	Offset	N/A	0	N/A	N/A	N/A	3.1	N/A
(RV14) 1094	(RV14) 1091	E Out	10	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	0.5	N/A	8.2	N/A
	(RV14) 1095	S In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	8.0	N/A
	(RV14) SVC	W In	6	Vitrified Clay	No	None	N/A	Broken Pipe	N/A	0	0.8	0.8	N/A	5.9	N/A
(RV14) 1095	(RV14) SVC	N In	4	Other	Yes	Debris	1.5	Broken Pipe	N/A	0	0.3	0.3	N/A	7.8	N/A
	(RV14) 1096	NW In	12	Vitrified Clay	No	None	N/A	Good	N/A	0	5.0	1.5	N/A	12.4	N/A
	(RV14) 2011	SE Out	15	Vitrified Clay	No	None	N/A	Good	N/A	0	9.0	1.0	N/A	12.5	N/A
(RV14) 1096	(RV14) plug	SW In	6	Vitrified Clay	No	Gravel	2.0	Good	N/A	0	N/A	N/A	N/A	8.1	N/A
	(RV14) 1095	SE Out	12	Vitrified Clay	No	None	N/A	Good	N/A	0	2.0	3.0	N/A	12.1	N/A
	(RV14) 1097	NW In	12	Vitrified Clay	No	None	N/A	Good	N/A	0	2.0	3.0	N/A	12.0	N/A
(RV14) 1097	(RV14) 1096	SE Out	12	Vitrified Clay	No	None	N/A	Good	N/A	0	3.0	2.0	N/A	14.4	N/A
	(RV14) 1099	NW In	12	Vitrified Clay	No	None	N/A	Good	N/A	0	4.0	1.7	N/A	14.3	N/A
(RV14) 1098	(RV14) 1094	SE Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	0.5	N/A	5.3	N/A
	(RV14) 2846	NW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	0.5	N/A	5.3	N/A
	(RV14) SVC	N In	4	PVC	No	None	N/A	Good	N/A	0	0.1	0.2	N/A	4.1	N/A
(RV14) 1099	(RV14) 1097	SE Out	12	Vitrified Clay	No	None	N/A	Good	N/A	0	3.0	2.0	N/A	16.3	N/A
	(RV14) 2310	SW In	12	Vitrified Clay	No	None	N/A	Good	N/A	0	3.0	2.0	N/A	15.9	N/A
	(RV14) svc	NE In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	8.3	N/A
(RV14) 1103	(RV14) 1104	NW In	12	Vitrified Clay	No	None	N/A	Good	N/A	0	2.5	1.0	N/A	10.0	N/A
	(RV14) 1112	SE In	8	PVC	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	3.7	N/A
	(RV14) 2313	NE Out	12	Vitrified Clay	No	None	N/A	Good	N/A	0	2.5	1.5	N/A	10.3	N/A

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

Visual Pipe Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Structural Condition	Line Grade	Visual Infiltr. (gpm)	Observed		Cleaning Method	Rim to Invert (ft.)	Rim to Crown (ft.)
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)				Depth (in.)	Velocity (fps)			
(RV14) 1104	(RV14) 1103	SE Out	12	Vitrified Clay	No	None	N/A	Good	N/A	0	3.0	1.5	N/A	11.1	N/A
	(RV14) 1105	SW In	12	Vitrified Clay	No	None	N/A	Good	N/A	0	2.5	1.5	N/A	11.0	N/A
(RV14) 1105	(RV14) 1104	NE Out	10	Vitrified Clay	No	None	N/A	Good	N/A	0	7.0	1.5	N/A	13.8	N/A
	(RV14) 1106	NW In	10	Vitrified Clay	No	None	N/A	Good	N/A	0	7.0	1.5	N/A	13.8	N/A
(RV14) 1106	(RV14) 1105	E Out	12	Vitrified Clay	No	None	N/A	Good	N/A	0	3.0	2.5	N/A	16.6	N/A
	(RV14) 1107	S In	10	Vitrified Clay	No	None	N/A	Good	N/A	0	5.0	2.5	N/A	16.4	N/A
(RV14) 1107	(RV14) 1106	N Out	10	Vitrified Clay	No	None	N/A	Good	N/A	0	5.0	2.0	N/A	14.7	N/A
	(RV14) 1115	E In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	7.4	N/A
	(RV14) 1117	S In	10	Vitrified Clay	No	None	N/A	Good	N/A	0	5.0	2.0	N/A	14.5	N/A
	(RV14) 1323	W In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	1.5	N/A	7.4	N/A
(RV14) 1108	(RV14) svc	SW In	4	PVC	No	None	N/A	Good	N/A	0	0.2	N/A	N/A	5.9	N/A
	(RV14) 1109	W In	6	Vitrified Clay	No	None	N/A	Broken Pipe	N/A	0	4.0	1.0	N/A	4.3	N/A
	(RV14) 1124	S In	6	PVC	No	None	N/A	Good	N/A	0	2.0	0.5	N/A	3.8	N/A
	(RV14) 2814	NE Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	3.0	1.0	N/A	4.2	N/A
(RV14) 1109	(RV14) EOL	E In	6	Vitrified Clay	No	Mud	2.0	Good	N/A	0	N/A	N/A	N/A	3.8	N/A
	(RV14) 1108	E Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	4.0	1.0	N/A	3.4	N/A
	(RV14) 1110	W In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	4.0	0.5	N/A	3.5	N/A
(RV14) 1110	(RV14) 1125	S In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.5	1.5	N/A	3.4	N/A
	(RV14) 1109	E Out	6	Vitrified Clay	Yes	None	N/A	Circular Cracks	N/A	0	N/A	N/A	N/A	3.3	N/A
	(RV14) 1111	W In	6	Vitrified Clay	No	None	N/A	Broken Pipe	N/A	0	N/A	N/A	N/A	3.3	N/A
(RV14) 1112	(RV14) SVC	SW In	4	Vitrified Clay	Yes	Debris	1.0	Circular Cracks	N/A	N/A	N/A	N/A	N/A	3.2	N/A
	(RV14) 1103	NE Out	8	PVC	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	4.4	N/A
	(RV14) 1113	W In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	4.3	N/A

1. "SVC"-Service Lateral/Building Lateral Connection
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Visual Pipe Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Structural Condition	Line Grade	Visual Infiltr. (gpm)	Observed		Cleaning Method	Rim to Invert (ft.)	Rim to Crown (ft.)
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)				Depth (in.)	Velocity (fps)			
(RV14) 1112	(RV14) 1116	S In	6	Vitrified Clay	No	None	N/A	Broken Pipe	N/A	0	1.5	0.3	N/A	4.4	N/A
(RV14) 1113	(RV14) 1112	E Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	1.0	N/A	4.7	N/A
(RV14) 1114	(RV14) 1114	S In	6	Vitrified Clay	Yes	Debris	0.3	Longitudinal Cracks	N/A	N/A	1.0	0.1	N/A	4.7	N/A
	(RV14) 1113	N Out	6	Vitrified Clay	No	None	N/A	Circular Cracks	N/A	0	1.0	0.5	N/A	7.5	N/A
	(RV14) EOL	W In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	0.5	N/A	7.4	N/A
(RV14) 1115	(RV14) SVC	S In	4	Vitrified Clay	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	3.6	N/A
	(RV14) 1114	E Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.5	N/A	4.4	N/A
	(RV14) EOL	S In	6	Vitrified Clay	No	None	N/A	Broken Pipe	N/A	0	0.2	0.1	N/A	4.3	N/A
(RV14) 1115A	(RV14) EOL	W In	6	Vitrified Clay	Yes	None	N/A	Circular Cracks	N/A	0	0.5	0.3	N/A	4.4	N/A
	(RV14) 1115	N Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	N/A	N/A	7.8	N/A
	(RV14) EOL	S In	6	Vitrified Clay	Yes	None	N/A	Circular Cracks	N/A	0	N/A	N/A	N/A	6.7	N/A
(RV14) 1116	(RV14) 1112	N Out	6	Vitrified Clay	Yes	Debris	1.0	Circular Cracks	N/A	N/A	2.0	N/A	N/A	6.3	N/A
	(RV14) EOL	S In	6	Vitrified Clay	Yes	Debris	0.5	Circular Cracks	N/A	N/A	1.0	N/A	N/A	6.3	N/A
	(RV14) EOL	W In	6	Vitrified Clay	Yes	None	N/A	Longitudinal Cracks	N/A	N/A	N/A	N/A	N/A	6.1	N/A
(RV14) 1118	(RV14) 1121	SW In	12	Vitrified Clay	No	Sludge	0.2	Good	N/A	0	1.5	0.2	N/A	8.5	N/A
	(RV14) 2063	NW Out	12	Vitrified Clay	No	Sludge	2.0	Good	N/A	0	3.0	0.3	N/A	8.6	N/A
	(RV14) plug	NE In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	5.5	N/A
	(RV14) plug	SE In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	5.4	N/A
	(RV14) svc	E In	4	Vitrified Clay	No	None	N/A	Good	N/A	0	0.1	0.2	N/A	5.3	N/A
(RV14) 1119	(RV14) 1088	NE Out	12	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	9.3	N/A
	(RV14) 1120	NW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.4	1.0	N/A	5.5	N/A
	(RV14) 2063	SE In	12	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.5	N/A	8.6	N/A
	(RV14) svc	N In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.2	0.4	N/A	8.2	N/A

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

Visual Pipe Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Structural Condition	Line Grade	Visual Infiltr. (gpm)	Observed		Cleaning Method	Rim to Invert (ft.)	Rim to Crown (ft.)
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)				Depth (in.)	Velocity (fps)			
(RV14) 1120	(RV14) 1119	E Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	0.7	N/A	3.1	N/A
	(RV14) EOL	S In	6	Vitrified Clay	No	None	N/A	Circular Cracks	N/A	0	0.5	0.7	N/A	3.1	N/A
(RV14) 1121	(RV14) 1118	NE Out	12	Vitrified Clay	No	Sludge	1.0	Good	N/A	0	0.5	0.5	N/A	10.3	N/A
	(RV14) eol	SE In	12	Vitrified Clay	No	Sludge	1.0	Good	N/A	0	0.5	0.5	N/A	10.1	N/A
(RV14) 1123	(RV14) 1093	N Out	6	Vitrified Clay	Yes	None	N/A	Circular Cracks	N/A	N/A	0.3	0.2	N/A	3.4	N/A
	(RV14) 2849	S In	6	Vitrified Clay	Yes	None	N/A	Circular Cracks	N/A	N/A	0.1	0.1	N/A	3.4	N/A
(RV14) 1124	(RV14) 1108	N Out	6	PVC	No	None	N/A	Good	N/A	0	1.0	1.0	N/A	2.8	N/A
	(RV14) 1299	S In	6	PVC	No	None	N/A	Good	N/A	0	1.3	1.0	N/A	2.8	N/A
(RV14) 1125	(RV14) 1109	N Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	2.0	1.5	N/A	3.8	N/A
	(RV14) 1126	W In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	2.5	1.5	N/A	3.5	N/A
	(RV14) 1300	S In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	3.0	N/A	N/A	3.7	N/A
(RV14) 1126	(RV14) 1125	E Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	3.5	1.0	N/A	4.1	N/A
	(RV14) 1301	S In	6	Vitrified Clay	Yes	None	N/A	Broken Pipe	N/A	0	3.5	1.0	N/A	4.1	N/A
	(RV14) SVC	N In	4	Vitrified Clay	No	None	N/A	Good	N/A	0	0.1	N/A	N/A	3.9	N/A
	(RV14) SVC	NW In	4	PVC	No	Debris	1.0	Good	N/A	0	N/A	N/A	N/A	3.5	N/A
(RV14) 1145	(RV14) 1083	N Out	8	Vitrified Clay	No	Future	1.0	Good	N/A	0	2.3	1.0	N/A	3.8	N/A
	(RV14) 2828	S In	8	Vitrified Clay	No	None	N/A	Good	N/A	0	2.0	1.0	N/A	3.8	N/A
(RV14) 1146	(RV14) 1080	N Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	0.5	N/A	2.4	N/A
	(RV14) 1146A	E In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.5	N/A	2.3	N/A
	(RV14) 1149	S In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	0.2	N/A	2.3	N/A
(RV14) 1146A	(RV14) 1146	W Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	3.3	N/A
	(RV14) EOL	S In	6	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	3.1	N/A
	(RV14) EOL	E In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	3.3	N/A

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

Visual Pipe Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition		Structural Condition	Line Grade	Visual Infiltr. (gpm)	Observed		Cleaning Method	Rim to Invert (ft.)	Rim to Crown (ft.)	
		Dir.	Diam (in.)	Construction	Root Growth	Depth Type (in.)				Depth (in.)	Velocity (fps)				
(RV14) 1147	(RV14) 1078	N Out	6	Vitrified Clay	No	Gravel	0.5	Good	N/A	0	1.0	1.0	N/A	3.7	N/A
	(RV14) 1148	S In	6	Vitrified Clay	No	Gravel	0.5	Good	N/A	0	1.5	0.5	N/A	3.7	N/A
(RV14) 1148	(RV14) 1147	N Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	3.6	N/A
	(RV14) 1153	S In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.7	0.5	N/A	3.5	N/A
(RV14) 1149	(RV14) 1146	N Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	3.1	N/A
	(RV14) EOL	E In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	2.7	N/A
	(RV14) PLUG	S In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	3.0	N/A
(RV14) 1150	(RV14) 1157	S In	8	Vitrified Clay	No	None	N/A	Good	N/A	0	2.0	1.0	N/A	4.4	N/A
	(RV14) 2828	N Out	8	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	1.5	N/A	4.5	N/A
	(RV14) EOL	E In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	3.8	N/A
(RV14) 1153	(RV14) 1148	N Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	N/A	N/A	3.8	N/A
(RV14) 1154	(RV14) 1161	S Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	2.5	N/A
(RV14) 1155	(RV14) 1156	W Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	1.0	N/A	2.5	N/A
	(RV14) EOL	E In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	N/A	N/A	2.4	N/A
	(RV14) UNK	N In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.5	N/A	1.9	N/A
(RV14) 1156	(RV14) 1155	E In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	2.2	N/A
	(RV14) 1158	W Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	2.2	N/A
(RV14) 1157	(RV14) 1150	N Out	8	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	1.5	N/A	2.0	N/A
	(RV14) 1158	SE In	8	Vitrified Clay	No	None	N/A	Good	N/A	0	1.5	1.0	N/A	2.0	N/A
(RV14) 1158	(RV14) 1156	E In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	1.9	N/A
	(RV14) 1157	NW Out	8	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	1.5	N/A	2.0	N/A
	(RV14) 1162	SE In	8	Vitrified Clay	No	None	N/A	Good	N/A	0	1.5	1.0	N/A	2.0	N/A
(RV14) 1161	(RV14) 1154	N In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.5	N/A	3.7	N/A

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

Visual Pipe Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Structural Condition	Line Grade	Visual Infiltr. (gpm)	Observed		Cleaning Method	Rim to Invert (ft.)	Rim to Crown (ft.)
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)				Depth (in.)	Velocity (fps)			
(RV14) 1161	(RV14) 1218	S Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.5	N/A	3.7	N/A
(RV14) 1162	(RV14) 1158	NW Out	8	PVC	No	None	N/A	Good	N/A	0	0.7	1.5	N/A	5.2	N/A
	(RV14) 1213	SE In	8	PVC	No	None	N/A	Good	N/A	0	1.0	1.2	N/A	5.1	N/A
(RV14) 1162A	(RV14) 1162	W Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	3.3	N/A
	(RV14) SVC	NE In	4	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	3.2	N/A
	(RV14) SVC	SE In	4	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	3.0	N/A
(RV14) 1162B	(RV14) 1158	NW Out	8	PVC	No	None	N/A	Good	N/A	0	2.0	1.0	N/A	4.6	N/A
	(RV14) 1162	SE In	8	PVC	No	Debris	0.5	Good	N/A	0	2.5	0.7	N/A	4.5	N/A
	(RV14) SVC	S In	8	PVC	No	None	N/A	Offset	N/A	0	N/A	N/A	N/A	4.1	N/A
(RV14) 1213	(RV14) 1162	NW Out	8	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	2.0	N/A	5.0	N/A
	(RV14) 2830	SE In	8	Vitrified Clay	No	None	N/A	Good	N/A	0	1.5	1.5	N/A	4.9	N/A
(RV14) 1213A	(RV14) 1162	NW Out	8	Vitrified Clay	No	Debris	1.0	Good	N/A	0	2.0	0.8	N/A	4.4	N/A
	(RV14) 1213	SE In	8	Vitrified Clay	No	Debris	0.5	Good	N/A	0	2.5	0.6	N/A	4.4	N/A
	(RV14) SVC	E In	4	Vitrified Clay	No	None	N/A	Offset	N/A	0	N/A	N/A	N/A	4.1	N/A
(RV14) 1218	(RV14) 1161	N In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	3.0	0.3	N/A	4.0	N/A
	(RV14) 1220	S Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.5	0.5	N/A	4.1	N/A
	(RV14) EOL	E In	6	Vitrified Clay	No	None	N/A	Circular Cracks	N/A	0	0.1	0.1	N/A	4.0	N/A
(RV14) 1220	(RV14) 1218	N In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	1.0	N/A	6.3	N/A
	(RV14) 1227	S In	8	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	1.0	N/A	6.4	N/A
	(RV14) 1516	E In	8	Vitrified Clay	No	None	N/A	Good	N/A	0	6.0	0.1	N/A	6.2	N/A
	(RV14) 2380	W Out	8	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	1.5	N/A	6.4	N/A
(RV14) 1227	(RV14) 1220	N Out	8	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	1.5	N/A	4.9	N/A
	(RV14) 1228	E In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.3	1.0	N/A	4.8	N/A

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

Visual Pipe Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition		Structural Condition	Line Grade	Visual Infiltr. (gpm)	Observed		Cleaning Method	Rim to Invert (ft.)	Rim to Crown (ft.)	
		Dir.	Diam (in.)	Construction	Root Growth	Depth Type (in.)				Depth (in.)	Velocity (fps)				
(RV14) 1228	(RV14) 1227	W Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	2.0	N/A	4.9	N/A
	(RV14) 2833	S In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	2.0	N/A	4.8	N/A
	(RV14) SVC	NE In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	2.5	N/A
(RV14) 1299	(RV14) 1124	N Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	3.9	N/A
	(RV14) 1304	S In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	1.0	N/A	2.9	N/A
(RV14) 1300	(RV14) 1125	N Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.1	0.2	N/A	5.6	N/A
	(RV14) EOL	S In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.1	0.2	N/A	5.4	N/A
(RV14) 1301	(RV14) 1126	N Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	3.0	1.0	N/A	6.5	N/A
	(RV14) SVC	W In	6	Vitrified Clay	Yes	None	N/A	Broken Pipe	N/A	0	2.8	1.0	N/A	6.5	N/A
	(RV14) SVC	E In	6	Vitrified Clay	Yes	Debris	5.5	Collapsed Pipe	N/A	0	N/A	N/A	N/A	6.3	N/A
(RV14) 1302	(RV14) 1301	E Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.5	1.5	N/A	6.8	N/A
	(RV14) 1309	S In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	2.0	1.5	N/A	5.8	N/A
	(RV14) EOL	W In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	6.0	N/A
(RV14) 1304	(RV14) 1299	N Out	6	PVC	No	None	N/A	Good	N/A	0	1.0	0.5	N/A	2.2	N/A
	(RV14) 1305	W In	6	Cast Iron	No	None	N/A	Good	N/A	0	0.8	1.0	N/A	2.1	N/A
	(RV14) 1306	S In	6	PVC	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	2.1	N/A
(RV14) 1305	(RV14) 1304	E Out	6	PVC	No	None	N/A	Good	N/A	0	0.3	0.5	N/A	5.7	N/A
	(RV14) 2807	S In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.5	0.1	N/A	5.8	N/A
	(RV14) EOL	W In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.5	N/A	5.6	N/A
(RV14) 1306	(RV14) 1304	N Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	4.3	N/A
	(RV14) 1307	S In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	4.3	N/A
(RV14) 1307	(RV14) 1306	N Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	3.3	N/A
	(RV14) 1308	W In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	0.5	N/A	3.1	N/A

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

Visual Pipe Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Structural Condition	Line Grade	Visual Infiltr. (gpm)	Observed		Cleaning Method	Rim to Invert (ft.)	Rim to Crown (ft.)
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)				Depth (in.)	Velocity (fps)			
(RV14) 1307	(RV14) SVC	SE In	4	Vitrified Clay	No	None	N/A	Broken Pipe	N/A	0	0.1	0.1	N/A	2.7	N/A
(RV14) 1308	(RV14) 1307	E Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	4.1	N/A
	(RV14) 1312	W In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	0.2	N/A	4.0	N/A
	(RV14) 2853	S In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	0.1	N/A	3.6	N/A
(RV14) 1308A	(RV14) 1305	W In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	6.0	N/A
	(RV14) 1308	E Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	6.0	N/A
(RV14) 1309	(RV14) 1302	N Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	3.0	1.5	N/A	5.2	N/A
	(RV14) 1310	W In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	3.0	0.5	N/A	5.3	N/A
	(RV14) 2852	S In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.5	N/A	4.0	N/A
(RV14) 1310	(RV14) EOL	E In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	4.7	N/A
	(RV14) 1309	E Out	6	Vitrified Clay	No	None	N/A	Circular Cracks	N/A	0	0.1	0.1	N/A	9.6	N/A
	(RV14) EOL	S In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	0.1	N/A	9.5	N/A
(RV14) 1312	(RV14) EOL	W In	6	Vitrified Clay	No	None	N/A	Broken Pipe	N/A	0	0.1	0.1	N/A	7.5	N/A
	(RV14) 1308	E Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	7.9	N/A
(RV14) 1313	(RV14) 1313	W In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	7.2	N/A
	(RV14) 1312	E Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	3.3	N/A
(RV14) 1323	(RV14) EOL	W In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	3.1	N/A
	(RV14) 1107	E Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	1.5	N/A	6.4	N/A
(RV14) 1324	(RV14) 1325	SW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	1.5	N/A	6.1	N/A
	(RV14) 1325	S Out	6	Vitrified Clay	Yes	None	N/A	Circular Cracks	N/A	0	0.1	0.2	N/A	4.7	N/A
	(RV14) 3396	NW In	6	Vitrified Clay	Yes	None	N/A	Broken Pipe	N/A	N/A	0.1	0.1	N/A	4.1	N/A
(RV14) 1325	(RV14) EOL	N In	6	PVC	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	4.5	N/A
	(RV14) 1323	NE Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	6.6	N/A

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

Visual Pipe Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Structural Condition	Line Grade	Visual Infiltr. (gpm)	Observed		Cleaning Method	Rim to Invert (ft.)	Rim to Crown (ft.)
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)				Depth (in.)	Velocity (fps)			
(RV14) 1325	(RV14) 1324	N In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	0.1	N/A	6.6	N/A
	(RV14) 1326	S In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	1.0	N/A	6.6	N/A
(RV14) 1326	(RV14) 1325	N Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	0.3	N/A	4.3	N/A
	(RV14) 1327	W In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.3	N/A	4.2	N/A
	(RV14) SVC	SW In	4	Vitrified Clay	Yes	None	N/A	Circular Cracks	N/A	0	N/A	N/A	N/A	4.1	N/A
(RV14) 1327	(RV14) 1326	E Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	0.1	N/A	4.3	N/A
	(RV14) 1328	W In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	4.0	0.3	N/A	3.9	N/A
	(RV14) EOL	N In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.5	N/A	4.0	N/A
(RV14) 1328	(RV14) 1327	E Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	4.9	N/A
	(RV14) 1330	W In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.5	N/A	4.9	N/A
	(RV14) 2148	N In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	4.8	N/A
(RV14) 1330	(RV14) 1328	E Out	6	Vitrified Clay	No	Mud	4.0	Offset	N/A	0	0.5	0.1	N/A	5.8	N/A
	(RV14) SVC	SW In	4	Vitrified Clay	No	None	N/A	Broken Pipe	N/A	0	0.2	0.3	N/A	4.9	N/A
	(RV14) SVC	W In	4	Vitrified Clay	Yes	Debris	1.5	Broken Pipe	N/A	N/A	0.1	0.3	N/A	5.1	N/A
(RV14) 1472	(RV14) SVC	S In	4	Vitrified Clay	No	None	N/A	Broken Pipe	N/A	0	N/A	N/A	N/A	1.9	N/A
	(RV14) SVC	SE In	4	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.3	N/A	1.9	N/A
	(RV14) SVC	W In	4	Vitrified Clay	No	None	N/A	Circular Cracks	N/A	0	N/A	N/A	N/A	1.8	N/A
	(RV14) T-CONN	N Out	4	Vitrified Clay	No	Mud	4.0	Collapsed Pipe	N/A	0	0.3	0.5	N/A	2.1	N/A
(RV14) 1516	(RV14) 1220	W Out	6	Vitrified Clay	Yes	Mud	2.0	Circular Cracks	N/A	0	N/A	N/A	N/A	2.2	N/A
(RV14) 1517	(RV14) 1529	S Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	N/A	N/A	2.3	N/A
	(RV14) PLUG	E In	4	Vitrified Clay	No	None	N/A	Not Visible	N/A	0	N/A	N/A	N/A	1.9	N/A
	(RV14) SVC	N In	4	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	2.0	N/A
(RV14) 1529	(RV14) 1517	N In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.2	0.5	N/A	4.8	N/A

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

Visual Pipe Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Structural Condition	Line Grade	Visual Infiltr. (gpm)	Observed		Cleaning Method	Rim to Invert (ft.)	Rim to Crown (ft.)
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)				Depth (in.)	Velocity (fps)			
(RV14) 1529	(RV14) 1530	E In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	2.0	1.0	N/A	4.9	N/A
	(RV14) 2833	W Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	1.5	N/A	4.9	N/A
(RV14) 1530	(RV14) 1529	W Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.5	1.0	N/A	6.2	N/A
	(RV14) 1531	E In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.5	1.0	N/A	6.1	N/A
	(RV14) SVC	S In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	4.3	N/A
(RV14) 1531	(RV14) 1530	W Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.5	1.0	N/A	4.8	N/A
	(RV14) 1532	E In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.5	N/A	4.7	N/A
	(RV14) UNK	NE In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	N/A	N/A	4.7	N/A
(RV14) 1532	(RV14) 1531	W Out	8	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	2.1	N/A
	(RV14) 1533	S In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	2.1	N/A
	(RV14) SVC	NE In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	1.6	N/A
(RV14) 1533	(RV14) 1057	S In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.5	0.5	N/A	3.6	N/A
	(RV14) 1532	N Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.5	0.5	N/A	3.7	N/A
	(RV14) SVC	W In	4	PVC	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	3.2	N/A
(RV14) 1534	(RV14) 1057	N Out	8	Vitrified Clay	No	Sludge	3.0	Not Visible	N/A	0	8.0	0.1	N/A	3.7	N/A
	(RV14) 5010	S In	8	Vitrified Clay	No	Sludge	2.0	Not Visible	N/A	0	8.0	0.1	N/A	3.7	N/A
(RV14) 1831	(RV14) 1069	NW Out	6	Vitrified Clay	No	None	N/A	Circular Cracks	N/A	0	1.0	0.5	N/A	4.1	N/A
	(RV14) 2194	SE In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	0.5	N/A	4.1	N/A
(RV14) 1832	(RV14) 1080	S Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.2	N/A	3.8	N/A
	(RV14) SVC	NE In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.2	N/A	3.7	N/A
(RV14) 2009	(RV14) 2880	NE Out	6	PVC	No	None	N/A	Offset	N/A	0	N/A	N/A	N/A	2.8	N/A
(RV14) 2148	(RV14) 1328	S Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	1.5	N/A	4.5	N/A
	(RV14) EOL	N In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	1.5	N/A	4.5	N/A

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

Visual Pipe Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Structural Condition	Line Grade	Visual Infiltr. (gpm)	Observed		Cleaning Method	Rim to Invert (ft.)	Rim to Crown (ft.)
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)				Depth (in.)	Velocity (fps)			
(RV14) 2148	(RV14) SVC	W In	4	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	3.9	N/A
(RV14) 2176	(RV14) 2851	SE Out	6	PVC	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	5.5	N/A
	(RV14) SVC	W In	4	PVC	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	5.1	N/A
	(RV14) SVC	NW In	4	PVC	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	4.9	N/A
	(RV14) SVC	SE In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	5.1	N/A
	(RV14) 2308	(RV14) 2309	NE Out	12	PVC	No	None	N/A	Good	N/A	0	5.0	2.0	N/A	12.5
(RV14) 2309	(RV14) 2311	N In	8	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	7.1	N/A
	(RV14) 2313	SW In	12	PVC	No	None	N/A	Good	N/A	0	6.0	1.7	N/A	12.4	N/A
	(RV14) SVC	S In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	7.1	N/A
	(RV14) 2310	SE Out	12	Vitrified Clay	No	None	N/A	Good	N/A	0	6.0	2.3	N/A	12.7	N/A
(RV14) 2310	(RV14) SVC	S In	4	PVC	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	8.5	N/A
	(RV14) 1099	SE Out	12	Vitrified Clay	No	None	N/A	Broken Pipe	N/A	0	6.0	1.0	N/A	12.4	N/A
	(RV14) 1101	SW In	12	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	11.9	N/A
(RV14) 2311	(RV14) 2309	NW In	10	Vitrified Clay	No	None	N/A	Good	N/A	0	5.0	1.2	N/A	12.2	N/A
	(RV14) 2308	S Out	8	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	7.1	N/A
	(RV14) 2312	N In	8	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	7.0	N/A
(RV14) 2312	(RV14) SVC	NW In	8	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	6.9	N/A
	(RV14) 2311	S Out	8	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	7.0	N/A
	(RV14) SVC	W In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	6.8	N/A
(RV14) 2807	(RV14) SVC	NW In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	6.8	N/A
	(RV14) 1305	N Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	2.8	N/A	N/A	3.7	N/A
	(RV14) EOL	W In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	2.5	N/A	N/A	3.8	N/A

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

Visual Pipe Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition		Structural Condition	Line Grade	Visual Infiltr. (gpm)	Observed		Cleaning Method	Rim to Invert (ft.)	Rim to Crown (ft.)	
		Dir.	Diam (in.)	Construction	Root Growth	Depth Type (in.)				Depth (in.)	Velocity (fps)				
(RV14) 2814	(RV14) 1094	NE Out	6	Cast Iron	No	None	N/A	Good	N/A	0	2.5	1.0	N/A	8.0	N/A
	(RV14) 1108	SW In	6	PVC	Yes	Debris	3.0	Good	N/A	N/A	2.5	1.0	N/A	6.8	N/A
(RV14) 2822	(RV14) 1030	NE Out	15	Vitrified Clay	No	None	N/A	Good	N/A	0	6.0	2.0	N/A	8.5	N/A
	(RV14) 1084	SW In	15	Vitrified Clay	No	None	N/A	Good	N/A	0	6.0	2.0	N/A	8.3	N/A
(RV14) 2824	(RV14) 1050	NW Out	6	Concrete	No	None	N/A	Longitudinal Cracks	N/A	0	N/A	N/A	N/A	3.4	N/A
	(RV14) SVC	NE In	4	Cast Iron	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	2.7	N/A
(RV14) 2828	(RV14) 1145	N Out	8	Cast Iron	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	3.0	N/A
	(RV14) 1150	S In	8	Cast Iron	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	3.0	N/A
(RV14) 2830	(RV14) 1213	NW Out	8	Vitrified Clay	No	None	N/A	Good	N/A	0	1.5	1.5	N/A	3.8	N/A
	(RV14) 1220	E In	8	Vitrified Clay	No	None	N/A	Good	N/A	0	1.5	1.5	N/A	3.7	N/A
(RV14) 2833	(RV14) 1228	N Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	1.5	N/A	5.1	N/A
	(RV14) 1529	E In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.2	1.0	N/A	4.9	N/A
(RV14) 2846	(RV14) 1098	SE Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	5.2	N/A
	(RV14) 2185	NW In	6	PVC	No	Debris	0.3	Good	N/A	0	N/A	N/A	N/A	5.1	N/A
	(RV14) SVC	NE In	4	Vitrified Clay	No	Debris	4.0	Collapsed Pipe	N/A	0	N/A	N/A	N/A	5.0	N/A
(RV14) 2847	(RV14) 1075	NE Out	6	PVC	No	None	N/A	Good	N/A	0	0.1	0.2	N/A	2.8	N/A
	(RV14) EOL	W In	6	PVC	No	None	N/A	Good	N/A	0	0.3	0.2	N/A	2.8	N/A
(RV14) 2848	(RV14) 1089	SE Out	15	Vitrified Clay	No	None	N/A	Good	N/A	0	3.0	2.0	N/A	7.7	N/A
	(RV14) 1092	NW In	15	Vitrified Clay	No	None	N/A	Good	N/A	0	3.0	2.0	N/A	7.5	N/A
	(RV14) SVC	S In	6	PVC	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	5.5	N/A
(RV14) 2849	(RV14) 1123	N Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	3.9	N/A
	(RV14) 2850	S In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	3.9	N/A
(RV14) 2850	(RV14) 2849	N Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	3.8	N/A

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

Visual Pipe Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Structural Condition	Line Grade	Visual Infiltr. (gpm)	Observed		Cleaning Method	Rim to Invert (ft.)	Rim to Crown (ft.)
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)				Depth (in.)	Velocity (fps)			
(RV14) 2850	(RV14) EOL	S In	6	Vitrified Clay	No	None	N/A	Circular Cracks	N/A	N/A	0.1	0.1	N/A	3.8	N/A
(RV14) 2852	(RV14) 1309	N Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	4.8	N/A
	(RV14) EOL	S In	6	Vitrified Clay	No	None	N/A	Broken Pipe	N/A	0	0.5	0.1	N/A	4.8	N/A
(RV14) 2853	(RV14) 1308	N Out	6	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	1.2	N/A
(RV14) 2880	(RV14) 1050	SE In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	3.4	N/A
	(RV14) 1051	NW Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.2	0.3	N/A	3.5	N/A
	(RV14) 2009	SW In	6	PVC	No	Debris	1.0	Good	N/A	0	1.8	0.1	N/A	3.4	N/A
(RV14) 3396	(RV14) 1324	SE Out	6	Vitrified Clay	Yes	None	N/A	Circular Cracks	N/A	0	0.3	1.0	N/A	7.1	N/A
	(RV14) EOL	NW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	1.0	N/A	5.9	N/A
Total Segments 467		Good 399		Long Crack 467		Collapsed 5		Flush 0	Jet 0	Total Length to Clean		Bucket 0	Root Control 0		
Total Footage		Broken 20		Circular Crac 26		N/A 2									
(RV23) 1002	(RV23) 1775	N Out	8	Concrete	No	None	N/A	Offset	N/A	0	8.0	3.0	N/A	7.5	N/A
	(RV23) SVC	SE In	4	Cast Iron	No	None	N/A	Offset	N/A	0	N/A	N/A	N/A	4.2	N/A
	(RV23) SVC	W In	4	Vitrified Clay	No	None	N/A	Offset	N/A	0	N/A	N/A	N/A	1.8	N/A
	(RV23) SVC	S In	6	Cast Iron	No	None	N/A	Offset	N/A	0	3.5	3.0	N/A	3.4	N/A
	(RV23) SVC	N In	4	Vitrified Clay	No	None	N/A	Offset	N/A	0	N/A	N/A	N/A	3.3	N/A
	(RV23) SVC	E In	6	Cast Iron	No	None	N/A	Offset	N/A	0	N/A	N/A	N/A	2.4	N/A
	(RV23) SVC	SW In	6	Cast Iron	No	None	N/A	Offset	N/A	0	N/A	N/A	N/A	0.9	N/A
(RV23) 1018	(RV23) 1482	SE In	8	Cast Iron	No	None	N/A	Good	N/A	0	2.0	1.0	N/A	6.9	N/A
	(RV23) 1774	N Out	8	PVC	No	None	N/A	Good	N/A	0	2.0	1.0	N/A	7.0	N/A
	(RV23) SVC	NE In	4	PVC	No	Debris	3.8	Offset	N/A	0	0.2	0.2	N/A	2.5	N/A
(RV23) 1019	(RV23) 1483	N Out	8	PVC	No	None	N/A	Good	N/A	0	4.0	1.5	N/A	4.8	N/A
	(RV23) 1776	W In	8	PVC	No	None	N/A	Good	N/A	0	3.5	2.0	N/A	4.7	N/A

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

Visual Pipe Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition		Structural Condition	Line Grade	Visual Infiltr. (gpm)	Observed		Cleaning Method	Rim to Invert (ft.)	Rim to Crown (ft.)	
		Dir.	Diam (in.)	Construction	Root Growth	Depth Type (in.)				Depth (in.)	Velocity (fps)				
(RV23) 1028	(RV23) 1027	NW In	6	Vitrified Clay	No	Debris	0.3	Good	N/A	0	1.0	0.3	N/A	5.1	N/A
	(RV23) 2058	SE Out	6	Concrete	No	None	N/A	Good	N/A	0	1.5	0.5	N/A	5.0	N/A
	(RV23) SVC	NE In	4	Vitrified Clay	No	Debris	0.5	Good	N/A	0	0.1	0.1	N/A	4.9	N/A
(RV23) 1048	(RV23) 1049	NW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	3.7	N/A
	(RV23) 1065	SW In	8	Vitrified Clay	No	None	N/A	Good	N/A	0	2.0	0.5	N/A	3.8	N/A
	(RV23) 1482	NE Out	8	Vitrified Clay	No	None	N/A	Good	N/A	0	2.0	1.5	N/A	3.8	N/A
	(RV23) 2856	SE In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.8	1.0	N/A	3.7	N/A
(RV23) 1049	(RV23) 1048	SE Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.1	0.3	N/A	4.0	N/A
	(RV23) 2855	NW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	0.1	N/A	4.2	N/A
(RV23) 1065	(RV23) 1048	NE Out	8	Vitrified Clay	No	None	N/A	Good	N/A	0	1.5	2.0	N/A	4.9	N/A
	(RV23) 1066	NW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.8	1.0	N/A	4.9	N/A
	(RV23) 1477	SE In	8	Vitrified Clay	No	None	N/A	Good	N/A	0	1.5	1.0	N/A	4.8	N/A
(RV23) 1066	(RV23) 1065	SE Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	0.5	N/A	4.7	N/A
	(RV23) 2827	SW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.5	N/A	4.5	N/A
	(RV23) EOL	NW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.5	N/A	4.6	N/A
(RV23) 1077	(RV23) 1476	SE Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	2.0	0.1	N/A	4.5	N/A
	(RV23) EOL	W In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	N/A	N/A	4.5	N/A
	(RV23) SVC	S In	6	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	4.0	N/A
(RV23) 1473	(RV23) 1474	NE Out	6	Vitrified Clay	No	None	N/A	Offset	N/A	0	N/A	N/A	N/A	2.6	N/A
(RV23) 1474	(RV23) 1473	SW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	N/A	N/A	4.8	N/A
	(RV23) 1475	NE Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	0.1	N/A	4.9	N/A
	(RV23) SVC	NW In	4	Vitrified Clay	Yes	None	N/A	Longitudinal Cracks	N/A	N/A	N/A	N/A	N/A	2.2	N/A
(RV23) 1475	(RV23) 1474	SW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	0.3	N/A	4.3	N/A

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

Visual Pipe Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Structural Condition	Line Grade	Visual Infiltr. (gpm)	Observed		Cleaning Method	Rim to Invert (ft.)	Rim to Crown (ft.)	
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)				Depth (in.)	Velocity (fps)				
(RV23) 1475	(RV23) 1476	NE Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	0.3	N/A	4.3	N/A	
(RV23) 1476	(RV23) 1077	NW In	6	Vitrified Clay	No	None	N/A	Broken Pipe	N/A	0	0.3	0.8	N/A	4.1	N/A	
	(RV23) 1475	SW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.8	1.5	N/A	4.2	N/A	
	(RV23) 1477	NE Out	8	Vitrified Clay	No	None	N/A	Good	N/A	0	1.8	1.5	N/A	4.2	N/A	
	(RV23) SVC	SE In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	4.1	N/A	
	(RV23) 1482	(RV23) 1018	NW Out	8	PVC	No	None	N/A	Good	N/A	0	2.5	2.0	N/A	5.2	N/A
(RV23) 1482	(RV23) 1020	SE In	6	Vitrified Clay	No	Future	1.0	Good	N/A	0	1.0	1.0	N/A	5.1	N/A	
	(RV23) 1048	SW In	8	Vitrified Clay	No	Future	1.0	Good	N/A	0	2.0	1.3	N/A	5.2	N/A	
	(RV23) 2058	NW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	1.3	N/A	5.0	N/A	
	(RV23) 1486	(RV23) SVC	SE In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	5.4	N/A
(RV23) 1486	(RV23) SVC	NE In	4	PVC	No	None	N/A	Good	N/A	0	1.4	0.1	N/A	5.5	N/A	
	(RV23) T-CONN	SW Out	6	PVC	No	None	N/A	Good	N/A	0	0.3	0.4	N/A	5.5	N/A	
	(RV23) 1487	(RV23) 1483	NW Out	10	Vitrified Clay	No	None	N/A	Good	N/A	0	2.0	0.5	N/A	4.1	N/A
(RV23) 1487	(RV23) 1488	SE In	10	Vitrified Clay	No	None	N/A	Good	N/A	0	2.0	0.5	N/A	4.0	N/A	
	(RV23) 1488	(RV23) 1487	NW Out	10	Vitrified Clay	No	None	N/A	Good	N/A	0	3.0	0.5	N/A	4.6	N/A
(RV23) 1488	(RV23) 1556	SE In	10	Vitrified Clay	No	None	N/A	Good	N/A	0	3.0	0.5	N/A	4.6	N/A	
	(RV23) SVC	NW In	4	PVC	No	None	N/A	Good	N/A	0	0.3	1.0	N/A	3.3	N/A	
	(RV23) 1489	(RV23) 1536	E Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.8	0.8	N/A	3.1	N/A
	(RV23) 2859A	S In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	2.9	N/A	
(RV23) 1489	(RV23) SVC	NW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.3	N/A	2.8	N/A	
	(RV23) 1492	(RV23) 1493	SE Out	8	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	1.0	N/A	4.8	N/A
	(RV23) 1496	SW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.5	0.5	N/A	4.6	N/A	
	(RV23) SVC	NW In	4	Vitrified Clay	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	4.1	N/A	

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

Visual Pipe Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition		Structural Condition	Line Grade	Visual Infiltr. (gpm)	Observed		Cleaning Method	Rim to Invert (ft.)	Rim to Crown (ft.)	
		Dir.	Diam (in.)	Construction	Root Growth	Depth Type (in.)				Depth (in.)	Velocity (fps)				
(RV23) 1493	(RV23) 1492	NW In	8	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.5	N/A	6.3	N/A
	(RV23) 1494	SE Out	8	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	2.0	N/A	6.5	N/A
	(RV23) 1497	SW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	0.7	N/A	6.4	N/A
(RV23) 1494	(RV23) 1493	NW In	10	Concrete	No	None	N/A	Good	N/A	0	2.0	1.0	N/A	4.7	N/A
	(RV23) 1498	SW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	0.5	N/A	4.6	N/A
	(RV23) 2167	SE Out	10	Concrete	No	None	N/A	Good	N/A	0	1.3	1.5	N/A	4.6	N/A
(RV23) 1496	(RV23) 1492	NE Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	1.0	N/A	4.1	N/A
	(RV23) 1501	SW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	3.0	0.5	N/A	4.0	N/A
(RV23) 1497	(RV23) 1493	NE Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	2.9	N/A
	(RV23) 1502	SW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	2.8	N/A
(RV23) 1498	(RV23) 1494	NE Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	3.7	N/A
	(RV23) 1503	SW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	3.5	N/A
(RV23) 1501	(RV23) 1496	NE Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	1.0	N/A	4.5	N/A
	(RV23) 1504	SW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	0.5	N/A	4.4	N/A
(RV23) 1502	(RV23) 1497	NE Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	3.1	N/A
	(RV23) 1505	SW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	3.1	N/A
(RV23) 1503	(RV23) 1498	NE Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	0.5	N/A	3.5	N/A
	(RV23) 1506	SW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	0.5	N/A	3.4	N/A
(RV23) 1504	(RV23) 1501	NE Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	3.5	N/A
	(RV23) 1509	SW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	3.3	N/A
(RV23) 1505	(RV23) 1502	NE Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.5	N/A	3.3	N/A
	(RV23) 1510	SW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.5	N/A	3.1	N/A
(RV23) 1506	(RV23) 1506	NE Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	0.5	N/A	4.4	N/A

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

Visual Pipe Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Structural Condition	Line Grade	Visual Infiltr. (gpm)	Observed		Cleaning Method	Rim to Invert (ft.)	Rim to Crown (ft.)
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)				Depth (in.)	Velocity (fps)			
(RV23) 1506	(RV23) 1514	S In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	0.5	N/A	4.3	N/A
(RV23) 1507	(RV23) 1500	N Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.3	0.3	N/A	4.1	N/A
	(RV23) 1508	S In	6	Vitrified Clay	No	Debris	0.3	Good	N/A	0	1.0	0.4	N/A	4.1	N/A
(RV23) 1508	(RV23) 1507	N Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	0.4	N/A	6.0	N/A
	(RV23) 1521	S In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.6	0.3	N/A	6.1	N/A
(RV23) 1509	(RV23) 1504	NE Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	0.5	N/A	2.2	N/A
	(RV23) 1512	S In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	2.3	N/A
(RV23) 1510	(RV23) 1505	NE Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.5	N/A	3.9	N/A
	(RV23) 1513	S In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.5	N/A	3.8	N/A
(RV23) 1511	(RV23) SVC	W In	4	PVC	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	3.2	N/A
	(RV23) 1506	NE Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	0.3	N/A	4.0	N/A
	(RV23) 1514	S In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	0.3	N/A	3.9	N/A
(RV23) 1512	(RV23) SVC	SE In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	3.5	N/A
	(RV23) 1509	N Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.2	1.0	N/A	3.4	N/A
(RV23) 1513	(RV23) 1515	S In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	0.5	N/A	3.2	N/A
	(RV23) 1510	N Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	3.6	N/A
(RV23) 1514	(RV23) 1518	S In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	3.5	N/A
	(RV23) 1511	N Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.2	0.3	N/A	4.7	N/A
(RV23) 1515	(RV23) 1519	S In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	0.4	N/A	4.6	N/A
	(RV23) SVC	NE In	3	Vitrified Clay	No	None	N/A	Offset	N/A	0	N/A	N/A	N/A	2.1	N/A
	(RV23) 1512	N Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.5	N/A	N/A	5.0	N/A
(RV23) 1515	(RV23) STUB	S In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.5	N/A	N/A	4.9	N/A
	(RV23) SVC	SE In	4	PVC	No	None	N/A	Offset	N/A	0	N/A	N/A	N/A	0.0	3.4

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

Visual Pipe Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Structural Condition	Line Grade	Visual Infiltr. (gpm)	Observed		Cleaning Method	Rim to Invert (ft.)	Rim to Crown (ft.)
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)				Depth (in.)	Velocity (fps)			
(RV23) 1518	(RV23) 1513	N Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	5.8	N/A
	(RV23) 1523	S In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	5.6	N/A
(RV23) 1519	(RV23) 1250	E In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	5.3	N/A
	(RV23) 1514	N Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	5.5	N/A
	(RV23) 1524	S In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.7	0.3	N/A	5.2	N/A
(RV23) 1520	(RV23) 1519	W Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.1	0.5	N/A	2.7	N/A
	(RV23) SVC	NE In	4	PVC	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	2.2	N/A
	(RV23) SVC	SE In	4	Vitrified Clay	No	None	N/A	Good	N/A	0	0.4	N/A	N/A	2.7	N/A
(RV23) 1521	(RV23) 1508	N Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	0.5	N/A	7.6	N/A
	(RV23) 1522	S In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	0.7	N/A	7.6	N/A
	(RV23) 1734	E In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	3.1	N/A
(RV23) 1522	(RV23) 1521	N Out	6	Vitrified Clay	No	Sludge	2.0	Good	N/A	0	3.0	1.0	N/A	4.1	N/A
	(RV23) 1526	S In	6	Vitrified Clay	No	Sludge	2.0	Good	N/A	0	3.5	0.3	N/A	4.1	N/A
(RV23) 1523	(RV23) 1518	N Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	2.5	N/A	N/A	4.2	N/A
	(RV23) 1528	S In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	2.5	N/A	N/A	4.1	N/A
(RV23) 1524	(RV23) 1519	N Out	6	Vitrified Clay	No	Sludge	1.0	Good	N/A	0	1.5	N/A	N/A	6.4	N/A
	(RV23) STUB	S In	6	Vitrified Clay	No	Sludge	2.0	Good	N/A	0	2.0	N/A	N/A	6.4	N/A
	(RV23) SVC	SW In	4	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	5.3	N/A
(RV23) 1525	(RV23) 1526	E Out	6	Concrete	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	3.4	N/A
	(RV23) SVC	NW In	4	PVC	No	Debris	3.0	Good	N/A	0	N/A	N/A	N/A	2.7	N/A
(RV23) 1526	(RV23) 1522	N Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	2.0	N/A	4.8	N/A
	(RV23) 1525	W In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	0.5	N/A	4.7	N/A
	(RV23) 1527	S In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.5	0.8	N/A	4.7	N/A

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

Visual Pipe Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition		Structural Condition	Line Grade	Visual Infiltr. (gpm)	Observed		Cleaning Method	Rim to Invert (ft.)	Rim to Crown (ft.)	
		Dir.	Diam (in.)	Construction	Root Growth	Depth Type (in.)				Depth (in.)	Velocity (fps)				
(RV23) 1527	(RV23) 1526	N Out	6	PVC	No	Debris	3.0	Good	N/A	0	N/A	N/A	N/A	4.3	N/A
(RV23) 1528	(RV23) 1523	N Out	6	Vitrified Clay	Yes	None	N/A	Good	N/A	0	N/A	N/A	N/A	4.6	N/A
(RV23) 1536	(RV23) 1489	NW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.8	1.0	N/A	4.2	N/A
	(RV23) 1560	S Out	6	PVC	No	None	N/A	Good	N/A	0	0.8	1.5	N/A	4.1	N/A
(RV23) 1556	(RV23) 1488	NW Out	10	Vitrified Clay	No	Debris	0.5	Good	N/A	0	3.0	0.5	N/A	4.5	N/A
	(RV23) 1557	SE In	10	Vitrified Clay	No	None	N/A	Good	N/A	0	3.0	0.5	N/A	4.4	N/A
(RV23) 1557	(RV23) 1556	NW Out	10	Vitrified Clay	No	None	N/A	Good	N/A	0	2.0	0.5	N/A	4.0	N/A
	(RV23) 1558	SE In	10	Vitrified Clay	No	None	N/A	Good	N/A	0	2.0	0.5	N/A	4.0	N/A
(RV23) 1558	(RV23) 1557	NW Out	10	Vitrified Clay	No	None	N/A	Good	N/A	0	2.0	0.5	N/A	3.3	N/A
	(RV23) 1559	SE In	10	Vitrified Clay	No	None	N/A	Good	N/A	0	2.0	0.5	N/A	3.3	N/A
(RV23) 1559	(RV23) 1558	NW Out	10	Vitrified Clay	No	None	N/A	Good	N/A	0	5.0	1.0	N/A	3.7	N/A
	(RV23) 1565	SW In	10	Cast Iron	No	None	N/A	Good	N/A	0	5.0	1.0	N/A	3.5	N/A
(RV23) 1560	(RV23) 1562	SE Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.8	0.5	N/A	4.4	N/A
	(RV23) SVC	N In	6	PVC	No	None	N/A	Good	N/A	0	0.5	0.5	N/A	4.1	N/A
	(RV23) SVC	NW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	0.2	N/A	4.4	N/A
(RV23) 1562	(RV23) 1560	NW In	10	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	1.0	N/A	7.8	N/A
	(RV23) 1563	S Out	10	Vitrified Clay	No	None	N/A	Good	N/A	0	1.5	0.7	N/A	7.9	N/A
(RV23) 1563	(RV23) 1562	N In	10	Vitrified Clay	No	None	N/A	Good	N/A	0	3.0	0.5	N/A	8.0	N/A
	(RV23) 1565	E Out	12	Vitrified Clay	No	None	N/A	Good	N/A	0	4.0	0.7	N/A	8.2	N/A
	(RV23) 1569	S In	12	Vitrified Clay	No	None	N/A	Good	N/A	0	4.0	0.5	N/A	8.1	N/A
(RV23) 1565	(RV23) 1563	NW In	10	Vitrified Clay	No	None	N/A	Broken Pipe	N/A	0	1.0	1.5	N/A	5.2	N/A
	(RV23) 1566	S In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	5.0	N/A
(RV23) 1569	(RV23) 1495	S In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	2.0	0.4	N/A	5.2	N/A

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

Visual Pipe Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition		Structural Condition	Line Grade	Visual Infiltr. (gpm)	Observed		Cleaning Method	Rim to Invert (ft.)	Rim to Crown (ft.)	
		Dir.	Diam (in.)	Construction	Root Growth	Depth Type (in.)				Depth (in.)	Velocity (fps)				
(RV23) 1569	(RV23) 1563	N Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	3.0	0.5	N/A	5.3	N/A
	(RV23) 2111	NW In	6	Concrete	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	4.1	N/A
(RV23) 1774	(RV23) 1018	S In	8	PVC	No	None	N/A	Good	N/A	0	5.5	0.8	N/A	5.5	N/A
	(RV23) 1775	SE In	8	PVC	No	None	N/A	Good	N/A	0	5.3	1.0	N/A	8.5	N/A
	(RV23) 1776	N Out	8	PVC	No	None	N/A	Good	N/A	0	5.0	1.5	N/A	8.6	N/A
(RV23) 1775	(RV23) 1002	S In	8	Concrete	No	Future	1.0	Good	N/A	0	5.0	1.8	N/A	8.7	N/A
	(RV23) 1774	NW Out	8	PVC	No	Future	1.0	Good	N/A	0	5.8	1.5	N/A	8.8	N/A
(RV23) 1776	(RV23) 1019	E Out	8	PVC	No	None	N/A	Good	N/A	0	4.5	2.5	N/A	5.1	N/A
	(RV23) 1483	S In	8	PVC	No	None	N/A	Good	N/A	0	5.3	2.0	N/A	5.0	N/A
(RV23) 2108	(RV23) 1561	NW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.5	N/A	6.3	N/A
	(RV23) 2109	NE Out	6	PVC	No	None	N/A	Good	N/A	0	0.5	0.5	N/A	6.5	N/A
	(RV23) SVC	SE In	4	PVC	No	None	N/A	Offset	N/A	0	N/A	N/A	N/A	6.3	N/A
(RV23) 2109	(RV23) 2108	SW In	6	PVC	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	5.8	N/A
	(RV23) 2110	NE Out	6	PVC	No	None	N/A	Good	N/A	0	0.8	0.5	N/A	5.9	N/A
(RV23) 2110	(RV23) 2109	SW In	6	PVC	No	None	N/A	Good	N/A	0	0.8	0.2	N/A	4.5	N/A
	(RV23) 2111	S Out	6	PVC	No	None	N/A	Good	N/A	0	0.5	0.5	N/A	4.4	N/A
(RV23) 2111	(RV23) 1569	SE Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	0.8	N/A	4.5	N/A
	(RV23) 2110	NE In	6	PVC	No	None	N/A	Good	N/A	0	1.0	0.2	N/A	4.5	N/A
	(RV23) SVC	NW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.3	0.3	N/A	4.5	N/A
(RV23) 2167	(RV23) 1494	NW In	10	Concrete	No	None	N/A	Good	N/A	0	2.8	1.0	N/A	4.6	N/A
	(RV23) 1495	SE Out	10	Concrete	No	None	N/A	Good	N/A	0	3.0	1.5	N/A	4.6	N/A
(RV23) 2357	(RV23) 2358	SE Out	8	PVC	No	None	N/A	Good	N/A	0	1.5	N/A	N/A	6.2	N/A
	(RV23) SVC	NW In	4	PVC	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	6.1	N/A

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

Visual Pipe Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition		Structural Condition	Line Grade	Visual Infiltr. (gpm)	Observed		Cleaning Method	Rim to Invert (ft.)	Rim to Crown (ft.)	
		Dir.	Diam (in.)	Construction	Root Growth	Depth Type (in.)				Depth (in.)	Velocity (fps)				
(RV23) 2358	(RV23) 1483	SW In	10	Vitrified Clay	No	None	N/A	Good	N/A	0	5.0	1.0	N/A	9.8	N/A
	(RV23) 2357	NW In	8	PVC	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	7.5	N/A
	(RV23) 2873	NE Out	10	Vitrified Clay	No	None	N/A	Good	N/A	0	6.0	0.1	N/A	9.9	N/A
	(RV23) SVC	SE In	4	PVC	No	None	N/A	Good	N/A	0	0.1	0.2	N/A	8.1	N/A
(RV23) 2827	(RV23) 1066	NE Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	2.9	N/A
	(RV23) SVC	NW In	4	Vitrified Clay	No	Mud	1.0	Broken Pipe	N/A	0	0.1	0.1	N/A	1.9	N/A
	(RV23) SVC	W In	4	Vitrified Clay	Yes	None	N/A	Good	N/A	0	N/A	N/A	N/A	1.8	N/A
	(RV23) SVC	SE In	4	PVC	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	2.7	N/A
	(RV23) SVC	SW In	4	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	2.7	N/A
(RV23) 2855	(RV23) 1049	SE Out	6	Vitrified Clay	No	None	N/A	Broken Pipe	N/A	0	N/A	N/A	N/A	4.3	N/A
(RV23) 2856	(RV23) 2856	NW Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	0.3	N/A	3.9	N/A
	(RV23) 2857	SE In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.2	0.5	N/A	3.5	N/A
(RV23) 2857	(RV23) 2856	NW Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.2	0.1	N/A	2.5	N/A
	(RV23) SVC	SW In	6	PVC	No	None	N/A	Good	N/A	0	0.2	0.1	N/A	2.0	N/A
(RV23) 2858	(RV23) 1491	SW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	2.8	N/A
	(RV23) 2859	NE Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	2.8	N/A
	(RV23) Stub	SE In	6	Concrete	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	1.5	N/A
	(RV23) SVC	NW In	4	PVC	No	Debris	2.0	Good	N/A	0	N/A	N/A	N/A	2.7	N/A
	(RV23) SVC	W In	4	PVC	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	1.3	N/A
(RV23) 2859	(RV23) 2858	SW In	6	Vitrified Clay	No	None	N/A	Good	N/A	0	0.5	1.0	N/A	2.5	N/A
	(RV23) 2859A	N Out	6	Vitrified Clay	No	None	N/A	Good	N/A	0	1.0	1.0	N/A	2.6	N/A
(RV23) 2859A	(RV23) 1489	NW Out	4	PVC	No	None	N/A	Offset	N/A	0	N/A	N/A	N/A	1.5	N/A
	(RV23) 2858	S In	4	PVC	No	None	N/A	Offset	N/A	0	N/A	N/A	N/A	1.5	N/A

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

Visual Pipe Inspection Report

Project No. 18-2455-00 Russellville, Arkansas

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Structural Condition	Line Grade	Visual Infiltr. (gpm)	Observed		Cleaning Method	Rim to Invert (ft.)	Rim to Crown (ft.)
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)				Depth (in.)	Velocity (fps)			
(RV23) 2859A	(RV23) 2859B	W In	4	PVC	No	None	N/A	Good	N/A	0	0.1	0.1	N/A	1.7	N/A
(RV23) 2859B	(RV23) 2859A	SE Out	4	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	2.0	N/A
	(RV23) SVC	SW In	4	Vitrified Clay	No	None	N/A	Good	N/A	0	N/A	N/A	N/A	1.9	N/A
(RV23) 2873	(RV23) 2153	NE Out	12	Vitrified Clay	No	None	N/A	Good	N/A	0	4.0	1.0	N/A	6.6	N/A
	(RV23) 2358	SW In	12	Vitrified Clay	No	None	N/A	Good	N/A	0	4.0	1.0	N/A	6.6	N/A
(RV23) 2874	(RV23) SVC	W In	4	PVC	No	None	N/A	Good	N/A	0	0.3	0.2	N/A	4.3	N/A
	(RV23) SVC	E Out	4	PVC	No	None	N/A	Good	N/A	0	0.8	1.0	N/A	4.3	N/A
	(RV23) SVC	S In	4	PVC	No	None	N/A	Good	N/A	0	0.5	1.3	N/A	3.8	N/A
		<u>Structural Condition</u>						<u>Total Length to Clean</u>							
Total Segments	204	Good	185	Long Crack	204	Collapsed	0	Flush	0	Jet	0	Bucket	0	Root Control	0
Total Footage		Broken	4	Circular Crac	0		N/A	0							
Report Totals		<u>Structural Condition</u>						<u>Total Length to Clean</u>							
Total Segments	1062	Good	918	Long Crack	10	Collapsed	6	Flush	0	Jet	0	Bucket	0	Root Control	0
Total Footage		Broken	39	Circular Crac	52		N/A	3							

- "SVC"-Service Lateral/Building Lateral Connection
- "EOL" -End of Line or Line has no Structure Connection

APPENDIX C

SMOKE TESTING REPORT

Smoke Testing Report

Project Number 18-2455-00 Russellville, Arkansas

<i>Structure</i>	<i>Address</i>	<i>Street Name</i>	<i>Smoke Leak Source</i>	<i>Potential Cross Connection</i>	<i>Recommended for Dyed Water Flooding</i>	<i>Smoke Along Main Sewer Line</i>	<i>Inflow Rate (gpd)</i>	<i>Length (ft)</i>
(RV07)1001 - (RV07)2210		W J ST	No Building Leaks		No	No		364
(RV07)1010 - (RV07)2155		N GLENWOOD AVE	No Building Leaks		No	No		449
(RV07)1056 - (RV07)1057	808B	BOULDER	USMH		No	No	0	153
	812A	BOULDER	Cleanout/Defective, Private		No	No	3,125	
(RV07)1436 - (RV07)6002	2320	E 16th STREET	Cleanout/Defective, Private		No	No	3,384	162
	2320	E 16th STREET	USMH		No	No	0	
(RV07)1448 - (RV07)1818		W J ST	No Building Leaks		No	No		
(RV07)1449 - (RV07)1448		WEST J STREET	No Building Leaks		No	No		
(RV07)1467 - (RV07)6385A	708	EL MIRA AVENUE	USMH		No	No	0	284
(RV07)1467A - (RV07)1467		EL MIRA AVE	No Building Leaks		No	No		106
(RV07)1467B - (RV07)1467A		EL MIRA AVE	No Building Leaks		No	No		132
(RV07)1484 - (RV07)1010		N GLENWOOD AVE	No Building Leaks		No	No		520
(RV07)1629 - (RV07)1648		S PITTSBURG AVE	No Building Leaks		No	No		262
(RV07)1640 - (RV07)1648		S PITTSBURG AVE	No Building Leaks		No	No		30
(RV07)1648 - (RV07)1680		S PITTSBURG AVE	No Building Leaks		No	No		167
(RV07)1680 - (RV07)1687		S PITTSBURG AVE	No Building Leaks		No	No		65
(RV07)1687 - (RV07)6041		S PITTSBURG AVE	No Building Leaks		No	No		198
(RV07)1708 - (RV07)6043		E 16th STREET	No Building Leaks		No	No		280
(RV07)1726 - (RV07)1738		EL PASO	No Building Leaks		No	No		104
(RV07)1738 - (RV07)1830	UNK	N GLENWOOD AVE	DSMH		No	No	0	452
(RV07)1788 - (RV07)6101	2301	E 16th STREET	Cleanout/Defective, Private		No	No	1,296	242
	2301	E 16th STREET	Lateral, Private Building		No	No	475	
(RV07)1788 - (RV07)6115		E 16th STREET	No Building Leaks		No	No		111
(RV07)1811 - (RV07)1829	UNK	EL PASO	Lateral, Private Building		No	No	907	172
(RV07)1818 - (RV07)2210		W J ST	No Building Leaks		No	No		
(RV07)1829 - (RV07)1738	UNK	EL PASO	USMH		No	No	0	89
(RV07)1830 - (RV07)1830A		GLENWOOD	No Building Leaks		No	No		43

Smoke Testing Report

Project Number 18-2455-00 Russellville, Arkansas

<i>Structure</i>	<i>Address</i>	<i>Street Name</i>	<i>Smoke Leak Source</i>	<i>Potential Cross Connection</i>	<i>Recommended for Dyed Water Flooding</i>	<i>Smoke Along Main Sewer Line</i>	<i>Inflow Rate (gpd)</i>	<i>Length (ft)</i>
(RV07)1830A - (RV07)2882	UNK	N GLENWOOD AVE	USMH		No	No	0	160
(RV07)2085 - (RV07)1448		W J ST	No Building Leaks		No	No		
(RV07)2153 - (RV07)1484		W J ST	No Building Leaks		No	No		
(RV07)2155 - (RV07)1830	UNK	N GLENWOOD AVE	USMH		No	No	0	75
(RV07)2196 - (RV07)2197		WEST PARKWAY	No Building Leaks		No	No		95
(RV07)2197 - (RV07)2198		WEST PARKWAY	No Building Leaks		No	No		315
(RV07)2197A - (RV07)2197		WEST PARKWAY	No Building Leaks		No	No		146
(RV07)2198 - (RV07)2199	UNK	WEST PARKWAY	USMH		No	No	0	368
(RV07)2199 - (RV07)2200		WEST PARKWAY	No Building Leaks		No	No		346
(RV07)2200 - (RV07)2201		WEST PARKWAY	No Building Leaks		No	No		394
(RV07)2201 - (RV07)2202		WEST PARKWAY	No Building Leaks		No	No		308
(RV07)2202 - (RV07)2203		WEST PARKWAY	No Building Leaks		No	No		347
(RV07)2203 - (RV07)2204		WEST PARKWAY	No Building Leaks		No	No		102
(RV07)2204 - (RV07)2205		WEST PARKWAY	No Building Leaks		No	No		317
(RV07)2205 - (RV07)2206		WEST PARKWAY	No Building Leaks		No	No		346
(RV07)2206 - (RV07)2207		WEST PARKWAY	No Building Leaks		No	No		414
(RV07)2207 - (RV07)2208		WEST PARKWAY	No Building Leaks		No	No		17
(RV07)2208 - (RV07)2209		GLENWOOD	No Building Leaks		No	No		327
(RV07)2247 - (RV07)2248		WEST PARKWAY	No Building Leaks		No	No		141
(RV07)2248 - (RV07)2196		WEST PARKWAY	No Building Leaks		No	No		384
(RV07)2249 - (RV07)2250		WEST PARKWAY	No Building Leaks		No	No		38
(RV07)2250 - (RV07)2251		WEST PARKWAY	No Building Leaks		No	No		400
(RV07)2252 - (RV07)2251		WEST PARKWAY	No Building Leaks		No	No		300
(RV07)2253 - (RV07)2252		WEST PARKWAY	No Building Leaks		No	No		417
(RV07)2806 - (RV07)2085	615	W J ST	DSMH		No	No	0	336
(RV07)2810 - (RV07)2811		WEST PARKWAY	No Building Leaks		No	No		145
(RV07)2811 - (RV07)2812	2415	WEST PARKWAY	Cleanout/Defective, Private		No	No	3,874	402

Smoke Testing Report

Project Number 18-2455-00 Russellville, Arkansas

<i>Structure</i>	<i>Address</i>	<i>Street Name</i>	<i>Smoke Leak Source</i>	<i>Potential Cross Connection</i>	<i>Recommended for Dyed Water Flooding</i>	<i>Smoke Along Main Sewer Line</i>	<i>Inflow Rate (gpd)</i>	<i>Length (ft)</i>
(RV07)2812 - (RV07)2813		WEST PARKWAY	No Building Leaks		No	No		81
(RV07)2812 - (RV07)3037		NORTH CUMBERLAND	No Building Leaks		No	No		213
(RV07)2813 - (RV07)2249		WEST PARKWAY	No Building Leaks		No	No		185
(RV07)2860 - (RV07)1001		WEST PARKWAY	No Building Leaks		No	No		418
(RV07)2861 - (RV07)1010		N GLENWOOD AVE	No Building Leaks		No	No		275
(RV07)2866 - (RV07)2197A	2000	W PARKWAY	USMH		No	No	0	387
(RV07)2882 - (RV07)2882A	UNK	GLENWOOD	USMH		No	No	0	18
(RV07)2882A - (RV07)2210	UNK	GLENWOOD	DSMH		No	No	0	21
(RV07)2888 - (RV07)3001A	401	WACO	Cleanout/Defective, Private		No	No	3,211	186
(RV07)3001 - (RV07)3425		WACO	No Building Leaks		No	No		202
(RV07)3037 - (RV07)3422		NORTH CUMBERLAND	No Building Leaks		No	No		402
(RV07)3038 - (RV07)3037		CUMBERLAND	No Building Leaks		No	No		264
(RV07)3421 - (RV07)3423		NORTH CUMBERLAND	No Building Leaks		No	No		407
(RV07)3422 - (RV07)3424		WACO	No Building Leaks		No	No		358
(RV07)3423 - (RV07)3422		NORTH CUMBERLAND	No Building Leaks		No	No		18
(RV07)3430 - (RV07)3001	401	WACO	Cleanout/Defective, Private		No	No	3,600	360
	401	WACO	Cleanout/Defective, Private		No	No	3,211	
	401	WACO	Cleanout/Defective, Private		No	No	2,362	
	401	WACO	Cleanout/Missing Cap, Private		No	No	1,138	
(RV07)6000 - (RV07)6102		S UTICA AVE	No Building Leaks		No	No		287
(RV07)6001 - (RV07)6498		E 16TH ST	No Building Leaks		No	No		698
(RV07)6002 - (RV07)6001		E 16th STREET	No Building Leaks		No	No		133
(RV07)6003 - (RV07)6004		FAIRWAY	No Building Leaks		No	No		27
(RV07)6004 - (RV07)6005		FAIRWAY	No Building Leaks		No	No		368
(RV07)6005 - (RV07)6006		FAIRWAY	No Building Leaks		No	No		367
(RV07)6006 - (RV07)6430	UNK	FAIRWAY	USMH		No	No	0	365
(RV07)6007 - (RV07)6431		E 11TH ST	No Building Leaks		No	No		493

Smoke Testing Report

Project Number 18-2455-00 Russellville, Arkansas

<i>Structure</i>	<i>Address</i>	<i>Street Name</i>	<i>Smoke Leak Source</i>	<i>Potential Cross Connection</i>	<i>Recommended for Dyed Water Flooding</i>	<i>Smoke Along Main Sewer Line</i>	<i>Inflow Rate (gpd)</i>	<i>Length (ft)</i>
(RV07)6008 - (RV07)6007	UNK	E 9TH ST	DSMH		No	No	0	210
(RV07)6009 - (RV07)6009A		E 9TH ST	No Building Leaks		No	No		249
(RV07)6009A - (RV07)6008		E 9TH ST	No Building Leaks		No	No		109
(RV07)6010 - (RV07)6009	1118	E 9TH ST	Cleanout/Defective, Private		No	No	2,909	357
(RV07)6012 - (RV07)6010	807	S MOBILE AVE	USMH		No	No	0	71
(RV07)6013 - (RV07)6015		S MOBILE ST	No Building Leaks		No	No		197
(RV07)6014 - (RV07)6013		E 8TH ST	No Building Leaks		No	No		325
(RV07)6015 - (RV07)6012	804	S MOBILE ST	USMH		No	No	0	238
(RV07)6016 - (RV07)6017		E 9TH ST	No Building Leaks		No	No		208
(RV07)6017 - (RV07)6010		E 9TH ST	No Building Leaks		No	No		223
(RV07)6018 - (RV07)6008	UNK	E 9TH ST	USMH		No	No	0	79
(RV07)6019 - (RV07)6018	1219	E 10 ST	Cleanout/Defective, Private		No	No	1,296	182
(RV07)6020 - (RV07)6019	1203	E 10th ST	USMH		No	No	0	361
	1207	E 10th ST	Cleanout/Missing Cap, Private		No	No	3,557	
	1207	E 10th ST	Mainline		No	No	0	
	1211	E 10th ST	Cleanout/Defective, Private		No	No	2,102	
(RV07)6021 - (RV07)6020	1121	E 10th ST	Cleanout/Defective, Private		No	No	3,010	364
	1129	E 10th ST	Cleanout/Defective, Private		No	No	3,010	
(RV07)6022 - (RV07)6021	67	E 10th ST	Lateral, Private Building		No	No	1,728	183
	1118	E 9th St	Cleanout/Defective, Private		No	No	2,146	
	1118	E 9th St	Cleanout/Defective, Private		No	No	2,318	
(RV07)6023 - (RV07)6022		E 10th ST	No Building Leaks		No	No		151
(RV07)6024 - (RV07)6022	1101	E 10th ST	Cleanout/Defective, Private		No	No	2,160	186
	1101	E 10th ST	USMH		No	No	0	
	1109	E 10th ST	Cleanout/Defective, Private		No	No	2,880	
(RV07)6025 - (RV07)6023		E 10th ST	No Building Leaks		No	No		147
(RV07)6026 - (RV07)6025	UNK	KNOXVILLE	USMH		No	No	0	89

Smoke Testing Report

Project Number 18-2455-00 Russellville, Arkansas

<i>Structure</i>	<i>Address</i>	<i>Street Name</i>	<i>Smoke Leak Source</i>	<i>Potential Cross Connection</i>	<i>Recommended for Dyed Water Flooding</i>	<i>Smoke Along Main Sewer Line</i>	<i>Inflow Rate (gpd)</i>	<i>Length (ft)</i>
(RV07)6027 - (RV07)6026		E 11th ST	No Building Leaks		No	No		336
(RV07)6028 - (RV07)6027		E 11th ST	No Building Leaks		No	No		321
(RV07)6029 - (RV07)6018	UNK	S OSWEGO AVE	DSMH		No	No	0	379
(RV07)6030 - (RV07)6029	1225	S OSWEGO	Cleanout/Defective, Private		No	No	3,557	266
	1229	S OSWEGO	Cleanout/Defective, Private		No	No	3,557	
	UNK	S OSWEGO	USMH		No	No	0	
(RV07)6031 - (RV07)6030	1134	E 10th ST	Cleanout/Defective, Private		No	No	1,426	332
	1205	E 12th ST	Cleanout/Defective, Private		No	No	2,880	
(RV07)6031A - (RV07)6031		E 12th ST	No Building Leaks		No	No		115
(RV07)6032 - (RV07)6031A	1124	E 10th ST	Cleanout/Missing Cap, Private		No	No	3,168	243
	1134	E 10th ST	Cleanout/Defective, Private		No	No	1,670	
	48	E 10th ST	Cleanout/Defective, Private		No	No	2,419	
	18	E 12th ST	Unmapped MH		No	No	0	
	19	E 12th ST	Cleanout/Defective, Private		No	No	2,419	
(RV07)6033 - (RV07)6032		E 12th ST	No Building Leaks		No	No		130
(RV07)6034 - (RV07)6033	1110	E 12th ST	Cleanout/Missing Cap, Private		No	No	2,362	160
(RV07)6035 - (RV07)6026		E 11TH ST	No Building Leaks		No	No		293
(RV07)6036 - (RV07)6035	1001	E 12th ST	Lateral, Private Building		No	No	2,880	323
(RV07)6037 - (RV07)6036		E 11TH ST	No Building Leaks		No	No		383
(RV07)6039 - (RV07)6484		QUINCY	No Building Leaks		No	No		16
(RV07)6041 - (RV07)1708		E 14TH STREET	No Building Leaks		No	No		35
(RV07)6042 - (RV07)6041		E 16 STREET	No Building Leaks		No	No		197
(RV07)6043 - (RV07)6463		E 16th STREET	No Building Leaks		No	No		550
(RV07)6083 - (RV07)6338		E 16th STREET	No Building Leaks		No	No		259
(RV07)6084 - (RV07)6083		E 16th STREET	No Building Leaks		No	No		17
(RV07)6085 - (RV07)6086		SIDNEY	No Building Leaks		No	No		111
(RV07)6086 - (RV07)6084		TAMPA AVENUE	No Building Leaks		No	No		161

Smoke Testing Report

Project Number 18-2455-00 Russellville, Arkansas

<i>Structure</i>	<i>Address</i>	<i>Street Name</i>	<i>Smoke Leak Source</i>	<i>Potential Cross Connection</i>	<i>Recommended for Dyed Water Flooding</i>	<i>Smoke Along Main Sewer Line</i>	<i>Inflow Rate (gpd)</i>	<i>Length (ft)</i>
(RV07)6087 - (RV07)6086		TAMPA AVENUE	No Building Leaks		No	No		205
(RV07)6088 - (RV07)6085	1325	SIDNEY	Cleanout/Defective, Private		No	No	2,794	340
	1328	SIDNEY	Cleanout/Defective, Private		No	No	3,010	
(RV07)6089 - (RV07)6087	1324	TAMPA AVENUE	Building Interior		No	No	0	351
(RV07)6090 - (RV07)6088	1313	SIDNEY	Cleanout/Defective, Private		No	No	1,426	282
(RV07)6091 - (RV07)6090		E 13th STREET	No Building Leaks		No	No		57
(RV07)6092 - (RV07)6091		E 13th STREET	No Building Leaks		No	No		213
(RV07)6093 - (RV07)6089	1313	S TAMPA AVE	Lateral, Private Building		No	No	1,426	354
	1313	S TAMPA AVE	Water Meter		No	No	1,426	
(RV07)6094 - (RV07)6464	1558	E 16th STREET	Cleanout/Defective, Private		No	No	2,045	18
(RV07)6095 - (RV07)6091	1808	E 12th STREET	Cleanout/Defective, Private		No	No	1,426	313
	1812	E 12th STREET	Lateral, Private Building		No	No	1,080	
(RV07)6096 - (RV07)6095		E 12th STREET	No Building Leaks		No	No		155
(RV07)6097 - (RV07)6093		S TAMPA AVE	No Building Leaks		No	No		352
(RV07)6098 - (RV07)6083	1332	TAMPA AVENUE	Cleanout/Defective, Private		No	No	1,296	393
	1341	TAMPA AVENUE	Cleanout/Defective, Private		No	No	1,440	
(RV07)6100 - (RV07)6105		E 16th STREET	No Building Leaks		No	No		236
(RV07)6101 - (RV07)6100	2116	E 15TH	Cleanout/Defective, Private		No	No	2,794	
	2107	E 16th STREET	Cleanout/Defective, Private		No	No	2,794	
	2117	E 16th STREET	Cleanout/Defective, Private		No	No	2,880	
(RV07)6102 - (RV07)6105		S UTICA AVE	No Building Leaks		No	No		290
(RV07)6103 - (RV07)6102	2103	15th	Cleanout/Defective, Private		No	No	2,203	216
	2105	15th	USMH		No	No	0	
(RV07)6104 - (RV07)6103	2108	EAST 14TH	Building Interior		No	No	0	244
(RV07)6105 - (RV07)6433		UTICA	No Building Leaks		No	No		141
(RV07)6106 - (RV07)6000		E 13th STREET	No Building Leaks		No	No		210
(RV07)6107 - (RV07)6106	2108	E 14th STREET	Building Interior		No	No	0	236

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(RV07)6108 - (RV07)6000		UTICA	No Building Leaks		No	No		288
(RV07)6109 - (RV07)6108		E 12th STREET	No Building Leaks		No	No		211
(RV07)6110 - (RV07)6109	2107	E 13th STREET	Cleanout/Defective, Private		No	No	1,426	235
(RV07)6111 - (RV07)6108		UTICA	No Building Leaks		No	No		285
(RV07)6112 - (RV07)6111	2109	E 12th STREET	Lateral, Private Building		No	No	2,880	295
(RV07)6113 - (RV07)6112		E 12th STREET	No Building Leaks		No	No		181
(RV07)6114 - (RV07)6115		E 16th STREET	No Building Leaks		No	No		398
(RV07)6115 - (RV07)6001	2320	E 16th STREET	USMH		No	No	0	48
(RV07)6117 - (RV07)6114		E 16th STREET	No Building Leaks		No	No		171
(RV07)6118 - (RV07)6117		E 17th STREET	No Building Leaks		No	No		398
(RV07)6119 - (RV07)6144		MEADOWBROOK LN	No Building Leaks		No	No		267
(RV07)6122 - (RV07)6029		S OSWEGO AVE	No Building Leaks		No	No		172
(RV07)6134 - (RV07)6434	1825	ROCHESTER	USMH		No	No	0	88
(RV07)6135 - (RV07)6134	1825	ROCHESTER	USMH		No	No	0	230
	1875	ROCHESTER	Building Interior		No	No	0	
(RV07)6136 - (RV07)6135		ROCHESTER	No Building Leaks		No	No		47
(RV07)6137 - (RV07)6138		S TAMPA AVE	No Building Leaks		No	No		172
(RV07)6138 - (RV07)6136		S TAMPA AVE	No Building Leaks		No	No		144
(RV07)6139 - (RV07)6138		S TAMPA AVE	No Building Leaks		No	No		319
(RV07)6140 - (RV07)6141		MONROE CT	No Building Leaks		No	No		400
(RV07)6141 - (RV07)6139		MONROE CT	No Building Leaks		No	No		90
(RV07)6142 - (RV07)6139		S TAMPA AVE	No Building Leaks		No	No		376
(RV07)6143 - (RV07)6142		E 19TH ST	No Building Leaks		No	No		315
(RV07)6144 - (RV07)6143		MEADOWBROOK LN	No Building Leaks		No	No		127
(RV07)6146 - (RV07)6119		MEADOWBROOK LN	No Building Leaks		No	No		265
(RV07)6147 - (RV07)6148		S VERONA AVE	No Building Leaks		No	No		297
(RV07)6148 - (RV07)6149	1809	VERONA	Cleanout/Defective, Private		No	No	2,419	298

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(RV07)6149 - (RV07)6150	1821	VERONA	Lateral, Private Building		No	No	2,520	145
(RV07)6150 - (RV07)6143		E 19TH ST	No Building Leaks		No	No		400
(RV07)6338 - (RV07)6136		ROCHESTER	No Building Leaks		No	No		205
(RV07)6340 - (RV07)6094		QUINCY CIRCLE	No Building Leaks		No	No		156
(RV07)6354 - (RV07)6041	1610	E 14TH PL	USMH		No	No	0	112
(RV07)6355 - (RV07)6354		E 14TH PL	No Building Leaks		No	No		211
(RV07)6356 - (RV07)6355	1521	E 15TH ST	Mainline		No	No	0	241
(RV07)6357 - (RV07)6356	1524	E 15TH ST	Lateral, Private Building		No	No	1,426	173
(RV07)6358 - (RV07)6355	1412	OSWEGO	USMH		No	No	0	311
(RV07)6359 - (RV07)6358		S OSWEGO PL	No Building Leaks		No	No		302
(RV07)6360 - (RV07)6358		S OSWEGO PL	No Building Leaks		No	No		360
(RV07)6373 - (RV07)6356		S PITTSBURG AVE	No Building Leaks		No	No		133
(RV07)6384 - (RV07)6385		S EL MIRA AVE	No Building Leaks		No	No		306
(RV07)6385 - (RV07)6386		S EL MIRA AVE	No Building Leaks		No	No		351
(RV07)6385A - (RV07)6385		EL MIRA AVENUE	No Building Leaks		No	No		320
(RV07)6386 - (RV07)6387		S EL MIRA AVE	No Building Leaks		No	No		364
(RV07)6387 - (RV07)6388		S EL MIRA AVE	No Building Leaks		No	No		356
(RV07)6388 - (RV07)6389		ELMIRA	No Building Leaks		No	No		365
(RV07)6389 - (RV07)6390	1310	S. ELMIRA	Cleanout/Defective, Private		No	No	2,160	334
(RV07)6390 - (RV07)6391		E 16TH ST	No Building Leaks		No	No		382
(RV07)6391 - (RV07)6392	2704	E 16th STREET	Area Drain		No	No	14,400	333
	UNK	ELMIRA	USMH		No	No	21,355	
(RV07)6392 - (RV07)6114	1808	E 16TH ST	USMH		No	No	0	393
(RV07)6393 - (RV07)6394		E 13TH ST	No Building Leaks		No	No		228
(RV07)6394 - (RV07)6395		E 13TH ST	No Building Leaks		No	No		297
(RV07)6395 - (RV07)6040		E 13TH ST	No Building Leaks		No	No		181
(RV07)6396 - (RV07)6397	1519	E 14TH ST	USMH		No	No	0	375

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(RV07)6397 - (RV07)6040		E 13TH ST	No Building Leaks		No	No		73
(RV07)6427 - (RV07)6016	804	S LOUISVILLE	Cleanout/Defective, Private		No	No	4,320	280
	803	S LOUISVILLE AVE	USMH		No	No	0	
(RV07)6431 - (RV07)6484		E 11TH ST	No Building Leaks		No	No		490
(RV07)6432 - (RV07)6110	2112	E 12th STREET	Cleanout/Defective, Private		No	No	864	235
(RV07)6433 - (RV07)6098		E 16TH ST	No Building Leaks		No	No		94
(RV07)6434 - (RV07)6340		ROCHESTER	No Building Leaks		No	No		183
(RV07)6435 - (RV07)6436	2301	E 16th STREET	Lateral, Private Building		No	No	706	294
	2301	E 16th STREET	Cleanout/Defective, Private		No	No	1,440	
(RV07)6436 - (RV07)6115		E 16th STREET	No Building Leaks		No	No		96
(RV07)6441 - (RV07)6472		QUINCY CIRCLE	No Building Leaks		No	No		159
(RV07)6461 - (RV07)6462		E 16th STREET	No Building Leaks		No	No		39
(RV07)6462 - (RV07)6464		E 16th STREET	No Building Leaks		No	No		250
(RV07)6463 - (RV07)6466		QUINCY CIRCLE	No Building Leaks		No	No		283
(RV07)6464 - (RV07)6463		QUINCY CIRCLE	No Building Leaks		No	No		314
(RV07)6465 - (RV07)6340	1588	E 16th STREET	Cleanout/Defective, Private		No	No	2,794	48
	1588	E 16th STREET	Cleanout/Defective, Private		No	No	1,670	
(RV07)6466 - (RV07)6467		QUINCY CIRCLE	No Building Leaks		No	No		208
(RV07)6467 - (RV07)6469		QUINCY CIRCLE	No Building Leaks		No	No		256
(RV07)6468 - (RV07)6464		QUINCY CIRCLE	No Building Leaks		No	No		250
(RV07)6469 - (RV07)6472		QUINCY CIRCLE	No Building Leaks		No	No		327
(RV07)6470 - (RV07)6474	1500	E 16th STREET APT E	Cleanout/Defective, Private		No	No	864	172
(RV07)6471 - (RV07)6474	1500	E 16th STREET	Cleanout/Defective, Private		No	No	2,362	166
(RV07)6472 - (RV07)6152		QUINCY CIRCLE	No Building Leaks		No	No		148
(RV07)6474 - (RV07)6441	1500	E 16th STREET	Lateral, Private Building		No	No	475	123
(RV07)6480 - (RV07)6481		E 13TH ST	No Building Leaks		No	No		169
(RV07)6481 - (RV07)6482		E 13TH ST	No Building Leaks		No	No		166

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(RV07)6482 - (RV07)6483	1527	OSWEGO	USMH		No	No	0	288
	UNK	OSWEGO	Cleanout/Defective, Private		No	No	1,584	
(RV07)6483 - (RV07)6484		PITTSBURG	No Building Leaks		No	No		390
(RV07)6484 - (RV07)1629		S PITTSBURG AVE	No Building Leaks		No	No		171
(RV07)6485 - (RV07)6039		QUINCY	No Building Leaks		No	No		182
(RV07)6486 - (RV07)6039		S PITTSBURG AVE	No Building Leaks		No	No		276
(RV07)6487 - (RV07)6486		S PITTSBURG AVE	No Building Leaks		No	No		305
(RV07)6488 - (RV07)6486	908	S PITTSBURG AVE	USMH		No	No	0	395
(RV07)6489 - (RV07)6488	LOT 33S	PITTSBURG AVE	Lateral, Private Building		No	No	1,656	396
(RV07)EOL - (RV07)1811		EL PASO	No Building Leaks		No	No		155
(RV07)EOL - (RV07)1818		WEST J STREET	No Building Leaks		No	No		
(RV07)EOL - (RV07)2806		FARGO	No Building Leaks		No	No		60
(RV07)EOL - (RV07)VENT PIPE		EL PASO	No Building Leaks		No	No		151
(RV07)VENT PIPE - (RV07)1811		EL PASO	No Building Leaks		No	No		245
(RV14)1003 - (RV14)1008		W PARKWAY AVENUE	No Building Leaks		No	No		80
(RV14)1005 - (RV14)1052	1017	W B STREET	Cleanout/Defective, Private		No	No	1,080	140
(RV14)1008 - (RV07)2860		W PARKWAY DR	No Building Leaks		No	No		292
(RV14)1009 - (RV14)1003	1020	W E STREET	USMH		No	No	0	225
(RV14)1012 - (RV14)1003		W PARKWAY	No Building Leaks		No	No		307
(RV14)1013 - (RV14)1009	1010	W E STREET	Mainline		No	No	0	293
(RV14)1014 - (RV14)1013		W E ST	No Building Leaks		No	No		238
(RV14)1015 - (RV14)1014	808	W E STREET	Cleanout/Defective, Private		No	No	2,160	305
	809	W E STREET	Lateral, Private Building		No	No	864	
	809	W E STREET	Lateral, Private Building		No	No	1,469	
	UNK	W E STREET	Lateral, Private Building		No	No	864	
	UNK	W E STREET	Storm Ditch		No	No	2,016	
	UNK	W E STREET	Mainline		No	No	0	

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(RV14)1017 - (RV14)1040		W C STREET	No Building Leaks		No	No		135
(RV14)1022 - (RV14)1012		W C STREET	No Building Leaks		No	No		133
(RV14)1024 - (RV14)1030	1112	W B STREET	Cleanout/Defective, Private		No	No	1,426	263
	1112	W B STREET	Cleanout/Defective, Private		No	No	1,426	
(RV14)1025 - (RV14)1024		W C ST	No Building Leaks		No	No		448
(RV14)1026 - (RV14)1025	903	W C STREET	Lateral, Private Building		No	No	706	200
(RV14)1030 - (RV14)1022	1208	W C STREET	USMH		No	No	0	360
(RV14)1031 - (RV14)1030	1301	W C ST	USMH		No	No	0	283
(RV14)1032 - (RV14)1030	1208	W C ST	Lateral, Private Building		No	No	1,080	228
	1213	W C ST	Mainline		No	No	0	
	1208	W C STREET	Cleanout/Defective, Private		No	No	2,794	
(RV14)1033 - (RV14)1031		W C ST	No Building Leaks		No	No		395
(RV14)1034 - (RV14)1032	200	S NEW ORLEANS	Lateral, Private Building		No	No	1,426	439
	200	S NEW ORLEANS	Lateral, Private Building		No	No	1,426	
	200	S NEW ORLEANS	Lateral, Private Building		No	No	1,426	
	1321	W C STREET	Lateral, Private Building		No	No	720	
	1321	W C STREET	Lateral, Private Building		No	No	720	
(RV14)1035 - (RV14)1034	1413	W C ST	Lateral, Private Building		No	No	3,600	426
	1413	W C ST	Cleanout/Defective, Private		No	No	2,794	
(RV14)1036 - (RV14)1033	302	W C STREET	USMH		No	No	0	362
(RV14)1037 - (RV14)1036		N PHOENIX AVENUE	No Building Leaks		No	No		258
(RV14)1038 - (RV14)1037	UNK	N PHOENIX AVE	USMH		No	No	0	353
(RV14)1039 - (RV14)1039A		W C STREET	No Building Leaks		No	No		39
(RV14)1039A - (RV14)1038		W C STREET	No Building Leaks		No	No		
(RV14)1040 - (RV14)1039		W C STREET	No Building Leaks		No	No		252
(RV14)1041 - (RV14)1017		W C STREET	No Building Leaks		No	No		331
(RV14)1042 - (RV14)1041		W C STREET	No Building Leaks		No	No		275

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(RV14)1043 - (RV14)1042	400	VANCOUVER	Cleanout/Defective, Private	No	No	No	475	220
	400	VANCOUVER	Cleanout/Defective, Private	No	No	No	1,397	
	400	VANCOUVER	Cleanout/Defective, Private	No	No	No	864	
	400	VANCOUVER	Cleanout/Defective, Private	No	No	No	864	
	400	VANCOUVER	Lateral, Private Building	No	No	No	1,512	
	400	VANCOUVER	Lateral, Private Building	No	No	No	1,512	
(RV14)1044 - (RV14)1036	1660	W C PLACE	Cleanout/Defective, Private	No	No	No	1,930	374
	302	W C ST	Mainline	No	No	No	0	
	302	W C ST	Water Meter	No	No	No	648	
(RV14)1045 - (RV14)1044	1710	W C PL	USMH	No	No	No	0	351
(RV14)1046 - (RV14)1045		W C PL	No Building Leaks	No	No	No		320
(RV14)1047 - (RV14)1046	1908	W C PL	Mainline	No	No	No	0	439
	1904	W C PLACE	Cleanout/Defective, Private	No	No	No	475	
	1904	W C PLACE	Cleanout/Missing Cap, Private	No	No	No	3,874	
(RV14)1050 - (RV14)2880	900	W B ST	Lateral, Private Building	No	No	No	1,080	126
	903	W B ST	Water Meter	No	No	No	432	
	903	W B ST	Lateral, Public Building	No	No	No	432	
(RV14)1051 - (RV14)1005	1001	W B ST	Lateral, Public Building	No	No	No	706	280
	1014	W B ST	Lateral, Public Building	No	No	No	1,080	
	1014	W B ST	Mainline	No	No	No	0	
(RV14)1052 - (RV14)1024	1106	W B STREET	Cleanout/Defective, Private	No	No	No	1,426	296
	1106	W B STREET	Mainline	No	No	No	0	
	1106	W B STREET	Cleanout/Defective, Private	No	No	No	2,794	
(RV14)1054 - (RV14)1052	1021	W B STREET	USMH	No	No	No	0	32
(RV14)1057 - (RV14)1533		BOULDER	No Building Leaks	No	No	No		101
(RV14)1057A - (RV14)1057		BOULDER	No Building Leaks	No	No	No		108
(RV14)1058 - (RV14)1032	1220	W B ST	USMH	No	No	No	0	279

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(RV14)1058 - (RV14)1032	1220	W B ST	Storm Ditch		No	No	2,016	279
	1220	W B STREET	Cleanout/Defective, Private		No	No	2,160	
(RV14)1059 - (RV14)1058	1202	W B STREET	Lateral, Public Building		No	No	1,296	71
	1220	W B STREET	Lateral, Private Building		No	No	1,080	
	1220	W B STREET	Building Interior		No	No	0	
(RV14)1060 - (RV14)1059	1310	MAIN STREET	Lateral, Private Building		No	No	1,296	298
	1304	W B ST	Mainline		No	No	0	
(RV14)1061 - (RV14)1060	1400	W B ST	Lateral, Private Building		No	No	1,728	
	1400	W B ST	Lateral, Private Building		No	No	1,080	
	1400	W B ST	Storm Ditch		No	No	2,016	
(RV14)1062 - (RV14)1061	1512	W B ST	Lateral, Public Building		No	No	2,146	297
(RV14)1063 - (RV14)1062		W B STREET	No Building Leaks		No	No		397
(RV14)1063A - (RV14)1063	UNK	W B STREET	USMH		No	No	0	96
(RV14)1069 - (RV14)1070	1109	W MAIN STREET	Mainline		No	No	0	400
	914	W MAIN STREET	USMH		No	No	0	
(RV14)1070 - (RV14)1054	1022	W MAIN STREET	Cleanout/Defective, Private		No	No	475	274
	1808	W MAIN STREET	USMH		No	No	0	
(RV14)1071 - (RV14)1070		W MAIN STREET	No Building Leaks		No	No		313
(RV14)1072 - (RV14)1059		W MAIN STREET	No Building Leaks		No	No		327
(RV14)1073 - (RV14)1072		W MAIN STREET	No Building Leaks		No	No		302
(RV14)1074 - (RV14)1073	1407	W MAIN STREET	Cleanout/Defective, Private		No	No	1,296	608
	1500	W MAIN STREET	Catch Basin		No	No	1,872	
(RV14)1075 - (RV14)1074	1713	MAIN STREET	Lateral, Public Building		No	No	1,080	550
	1808	MAIN STREET	USMH		No	No	0	
	1602	W MAIN STREET	Catch Basin		No	No	1,872	
	1609	W MAIN STREET	Cleanout/Defective, Private		No	No	965	
	1611	W MAIN STREET	Lateral, Public Building		No	No	1,930	

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(RV14)1075 - (RV14)1074	1611	W MAIN STREET	Mainline		No	No	0	550
	1611	W MAIN STREET	Cleanout/Defective, Private		No	No	1,728	
	1611	W MAIN STREET	Lateral, Public Building		No	No	1,930	
	1713	W MAIN STREET	Lateral, Private Building		No	No	1,080	
	1713	W MAIN STREET	Lateral, Private Building		No	No	1,296	
	1713	W MAIN STREET	Lateral, Private Building		No	No	1,296	
	1713	W MAIN STREET	Water Meter		No	No	1,296	
	1713	W MAIN STREET	Lateral, Private Building		No	No	1,296	
	1713	W MAIN STREET	Cleanout/Defective, Private		No	No	1,296	
	1713	W MAIN STREET	Lateral, Private Building		No	No	1,296	
(RV14)1076 - (RV14)1075		MAIN STREET	No Building Leaks		No	No		60
(RV14)1078 - (RV14)1079	UNK	W 2ND ST	Lateral, Private Building		No	No	1,296	308
	UNK	W 2ND STREET	Lateral, Private Building		No	No	1,296	
(RV14)1079 - (RV14)1080	802	W 2ND STREET	Lateral, Private Building		No	No	7,747	283
	815	W 2ND STREET	Cleanout/Defective, Private		No	No	950	
(RV14)1080 - (RV14)1083	819	W 2ND ST	Mainline		No	No	0	308
	816	W 2ND STREET	Lateral, Private Building		No	No	864	
	819	W 2ND STREET	Cleanout/Defective, Private		No	No	2,794	
	819	W 2ND STREET	Building Interior		No	No	0	
	UNK	W 2ND STREET	Lateral, Private Building		No	No	720	
(RV14)1081 - (RV14)1069	910	S JONESBORO AVE	Lateral, Private Building		No	No	720	385
	910	S JONESBORO AVE	Lateral, Private Building		No	No	720	
	910	S JONESBORO AVENUE	Inlet		No	No	1,872	
(RV14)1083 - (RV14)1081		S JONESBORO AVE	No Building Leaks		No	No		400
(RV14)1084 - (RV14)2822	1200	W MAIN STREET	Cleanout/Defective, Private		No	No	2,376	403
(RV14)1085 - (RV14)1084		LOREDO	No Building Leaks		No	No		169
(RV14)1086 - (RV14)1085		2ND STREET	No Building Leaks		No	No		57

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(RV14)1087 - (RV14)1072	1216	2ND STREET	Cleanout/Defective, Private		No	No	864	320
	1201	W MAIN STREET	Cleanout/Defective, Private		No	No	4,838	
(RV14)1088 - (RV14)1086		2ND STREET	No Building Leaks		No	No		338
(RV14)1089 - (RV14)1088		2ND STREET	No Building Leaks		No	No		136
(RV14)1091 - (RV14)1087	UNK	OMAHA	Cleanout/Defective, Private		No	No	1,080	495
(RV14)1092 - (RV14)2848		OMAHA	No Building Leaks		No	No		258
(RV14)1093 - (RV14)2011	1112	S OMAHA AVE	Lateral, Private Building		No	No	2,146	262
(RV14)1094 - (RV14)1091	UNK	S PHOENIX	USMH		No	No	0	432
(RV14)1095 - (RV14)2011	UNK	S PHOENIX	USMH		No	No	0	359
(RV14)1096 - (RV14)1095	200	S PHOENIX AVE	DSMH		No	No	0	60
(RV14)1097 - (RV14)1096		W 2ND ST	No Building Leaks		No	No		244
(RV14)1098 - (RV14)1094		2ND STREET	No Building Leaks		No	No		451
(RV14)1099 - (RV14)1097		W 2ND ST	No Building Leaks		No	No		344
(RV14)1101 - (RV14)2310		S RENO AVE	No Building Leaks		No	No		
(RV14)1103 - (RV14)2313	1900	W 2ND PL	USMH		No	No	0	55
(RV14)1104 - (RV14)1103		W 2ND PL	No Building Leaks		No	No		318
(RV14)1105 - (RV14)1104		W 2ND PL	No Building Leaks		No	No		263
(RV14)1106 - (RV14)1105		W 2ND PL	No Building Leaks		No	No		320
(RV14)1107 - (RV14)1106		S VANCOUVER AVE	No Building Leaks		No	No		185
(RV14)1107A - (RV14)1107		S VANCOUVER AVE	No Building Leaks		No	No		201
(RV14)1108 - (RV14)2814		S PHOENIX AVE	No Building Leaks		No	No		144
(RV14)1109 - (RV14)1108	1600	W 2ND PL	USMH		No	No	0	315
(RV14)1110 - (RV14)1109	1700	W 2ND PL	Mainline		No	No	0	296
	1703	W 2ND PL	Lateral, Private Building		No	No	1,930	
	1703	W 2ND PL	Lateral, Private Building		No	No	2,909	
	1703	W 2ND PL	Lateral, Private Building		No	No	1,930	
	1703	W 2ND PL	Lateral, Private Building		No	No	864	

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(RV14)1110 - (RV14)1109	1703	W 2ND PL	Lateral, Private Building		No	No	4,838	296
(RV14)1111 - (RV14)1110	200	W 2ND PL	Lateral, Private Building		No	No	475	277
	200	W 2ND PL	Cleanout/Defective, Private		No	No	1,426	
(RV14)1112 - (RV14)1103		W 2ND PL	No Building Leaks		No	No		51
(RV14)1113 - (RV14)1112		W 2ND PL	No Building Leaks		No	No		295
(RV14)1114 - (RV14)1113	1905	W 2ND PL	USMH		No	No	0	138
(RV14)1115 - (RV14)1114		W 2ND PL	No Building Leaks		No	No		237
(RV14)1115A - (RV14)1115		S UTAH AVE	No Building Leaks		No	No		273
(RV14)1116 - (RV14)1112	1900	W 2ND PL	DSMH		No	No	0	300
(RV14)1118 - (RV14)2063	126	LAREDO	Cleanout/Defective, Private		No	No	2,419	148
(RV14)1119 - (RV14)1088		2ND STREET	No Building Leaks		No	No		284
(RV14)1120 - (RV14)1119	200	S MUSKOGEE	Lateral, Public Building		No	No	1,570	134
(RV14)1121 - (RV14)1118	1122	BRADLEY	Cleanout/Defective, Private		No	No	2,016	216
	1122	BRADLEY	Cleanout/Defective, Private		No	No	1,771	
(RV14)1123 - (RV14)1093		S OMAHA AVE	No Building Leaks		No	No		281
(RV14)1124 - (RV14)1108	211	S PHOENIX AVE	Cleanout/Defective, Private		No	No	2,794	350
	213	S PHOENIX AVE	Cleanout/Missing Cap, Private		No	No	648	
(RV14)1125 - (RV14)1109	212	S QUANA AVE	Cleanout/Defective, Private		No	No	5,803	365
(RV14)1126 - (RV14)1125		W 2ND CT	No Building Leaks		No	No		295
(RV14)1145 - (RV14)1083	224	INDEPENDENCE	Lateral, Private Building		No	No	1,512	279
	832	WEST 3RD STREET	Lateral, Private Building		No	No	706	
(RV14)1146 - (RV14)1080	819	W 2ND STREET	Lateral, Private Building		No	No	1,728	288
	808	W 3RD STREET	Mainline		No	No	0	
(RV14)1146A - (RV14)1146	806	W 3RD STREET	Cleanout/Defective, Private		No	No	3,341	169
(RV14)1147 - (RV14)1078	200	S DENVER	Lateral, Private Building		No	No	1,296	306
	200	S DENVER	Lateral, Private Building		No	No	1,080	
	UNK	S GLENWOOD AVE	Cleanout/Defective, Private		No	No	1,080	

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(RV14)1148 - (RV14)1147	300	S GLENWOOD AVENUE	Lateral, Private Building		No	No	1,296	301
	302	S GLENWOOD AVENUE	Lateral, Private Building		No	No	720	
	302	S GLENWOOD AVENUE	Building Interior		No	No	0	
	302	S GLENWOOD AVENUE	Lateral, Private Building		No	No	1,080	
	302	S GLENWOOD AVENUE	Cleanout/Defective, Private		No	No	1,829	
	311	S GLENWOOD AVENUE	Cleanout/Defective, Private		No	No	1,829	
	311	S GLENWOOD AVENUE	Lateral, Private Building		No	No	1,296	
(RV14)1149 - (RV14)1146	302	S HOUSTON	Lateral, Private Building		No	No	475	304
(RV14)1150 - (RV14)2828	315	INDEPENDENCE	Lateral, Private Building		No	No	1,512	274
	835	WEST 3RD STREET	Cleanout/Defective, Private		No	No	1,426	
(RV14)1153 - (RV14)1148	318	S GLENWOOD AVE	Lateral, Private Building		No	No	720	245
	329	S GLENWOOD AVE	Mainline		No	No	0	
	329	S GLENWOOD AVE	USMH		No	No	0	
	318	S GLENWOOD AVENUE	Lateral, Public Building		No	No	648	
	318	S GLENWOOD AVENUE	Lateral, Private Building		No	No	2,794	
	329	S GLENWOOD AVENUE	Cleanout/Defective, Private		No	No	1,728	
(RV14)1154 - (RV14)1161	408	S GLENWOOD AVE	Lateral, Private Building		No	No	1,296	220
	410	S GLENWOOD AVE	Lateral, Private Building		No	No	864	
	410	S GLENWOOD AVE	Lateral, Private Building		No	No	1,296	
	410	S GLENWOOD AVENUE	Lateral, Private Building		No	No	864	
	421	S GLENWOOD AVENUE	Building Interior		No	No	0	
(RV14)1155 - (RV14)1156	1818	WEST 4TH STREET	DSMH		No	No	0	300
(RV14)1156 - (RV14)1158		W 4TH ST	No Building Leaks		No	No		215
(RV14)1157 - (RV14)1150	322	INDEPENDENCE	Building Interior		No	No	0	232
(RV14)1158 - (RV14)1157	327	INDEPENDENCE	USMH		No	No	0	99
(RV14)1161 - (RV14)1218	429	GLENWOOD	Cleanout/Missing Cap, Private		No	No	1,296	290
	432	W 5th STREET	Cleanout/Defective, Private		No	No	3,557	

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(RV14)1161 - (RV14)1218	432	W 5th STREET	Cleanout/Defective, Private		No	No	3,125	290
(RV14)1162 - (RV14)1162B	819	W 4TH STREET	Lateral, Private Building		No	No	230	274
(RV14)1162B - (RV14)1158	819	W 4TH STREET	Lateral, Private Building		No	No	475	191
(RV14)1162B - (RV14)1162A		W 4TH STREET	No Building Leaks		No	No		251
(RV14)1213 - (RV14)1213A		W 5th STREET	No Building Leaks		No	No		21
(RV14)1213A - (RV14)1162	814	W 4TH STREET	Lateral, Private Building		No	No	1,080	501
	814	W 4TH STREET	Mainline		No	No	0	
(RV14)1220 - (RV14)1218		GLENWOOD	No Building Leaks		No	No		306
(RV14)1220 - (RV14)2830	614	W 6TH STREET	Lateral, Private Building		No	No	2,794	196
	614	W 6TH STREET	Cleanout/Defective, Private		No	No	4,421	
	614	W 6TH STREET, APT G	Cleanout/Missing Cap, Private		No	No	1,930	
(RV14)1227 - (RV14)1220	513	W 6TH STREET	Lateral, Private Building		No	No	1,426	280
(RV14)1228 - (RV14)1227		W 7TH STREET	No Building Leaks		No	No		
(RV14)1299 - (RV14)1124		S PHOENIX AVE	No Building Leaks		No	No		3,225
(RV14)1300 - (RV14)1125		S QUANA AVE	No Building Leaks		No	No		305
(RV14)1301 - (RV14)1126	1807	BRADLEY LN	USMH		No	No	0	293
	UNK	S RENO AVE	Lateral, Private Building		No	No	4,306	
(RV14)1302 - (RV14)1301	1820	BRADLEY LN	USMH		No	No	0	397
	1807	W BRADLEY LN	Cleanout/Defective, Private		No	No	864	
(RV14)1304 - (RV14)1299	221	S PHOENIX AVE	Cleanout/Defective, Private		No	No	1,930	283
(RV14)1305 - (RV14)1304		W 3RD ST	No Building Leaks		No	No		300
(RV14)1306 - (RV14)1304		S PHOENIX AVE	No Building Leaks		No	No		302
(RV14)1307 - (RV14)1306		S PHOENIX AVE	No Building Leaks		No	No		290
(RV14)1308 - (RV14)1307	309	S PHOENIX AVE	Cleanout/Defective, Private		No	No	2,376	312
(RV14)1308A - (RV14)1308	1311_	W 3RD CT	USMH		No	No	0	362
	1701	W 3RD CT	Mainline		No	No	0	
	1810	W 3RD ST	Cleanout/Defective, Private		No	No	2,909	

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(RV14)1309 - (RV14)1302		S SEATTLE AVE	No Building Leaks		No	No		278
(RV14)1310 - (RV14)1309		W 3RD ST	No Building Leaks		No	No		269
(RV14)1310A - (RV14)1310		S TULSA AVE	No Building Leaks		No	No		354
(RV14)1312 - (RV14)1308A		W 3RD CT	No Building Leaks		No	No		350
(RV14)1313 - (RV14)1312	1905	W 3RD ST	Lateral, Private Building		No	No	648	292
(RV14)1323 - (RV14)1107	2201	W 2ND PL	Cleanout/Defective, Private		No	No	5,170	217
(RV14)1324 - (RV14)1325	236	S ARLINGTON AVE	Cleanout/Defective, Private		No	No	475	229
(RV14)1325 - (RV14)1323		W 2ND PL	No Building Leaks		No	No		243
(RV14)1326 - (RV14)1325		S ARLINGTON AVE	No Building Leaks		No	No		381
(RV14)1327 - (RV14)1326		BRADLEY LN	No Building Leaks		No	No		333
(RV14)1328 - (RV14)1327	2507	BRADLEY LN	Cleanout/Defective, Private		No	No	0	332
(RV14)1330 - (RV14)1328	2615	BRADLEY LN	Building Interior		No	No	0	210
	2708	BRADLEY LN	Cleanout/Defective, Private		No	No	2,794	
(RV14)1472 - (RV14)1301		W BRADLEY LN	No Building Leaks		No	No		180
(RV14)1516 - (RV14)1220	413	W 6TH ST	Lateral, Private Building		No	No	1,296	395
	413	W 6TH ST	Mainline		No	No	0	
	413	W 6TH ST	USMH		No	No	0	
	503	W 6TH ST	Lateral, Private Building		No	No	864	
	503	W 6TH ST	Water Meter		No	No	648	
	506	W 6TH ST	Lateral, Private Building		No	No	2,909	
	UNK	W 6TH ST	Lateral, Private Building		No	No	864	
	501	W 6TH STREET	Lateral, Private Building		No	No	1,296	
	501	W 6TH STREET	Lateral, Private Building		No	No	1,296	
	UNK	W 6TH STREET	Lateral, Private Building		No	No	1,296	
(RV14)1517 - (RV14)1529	611	S DENVER AVE	Building Interior		No	No	0	442
	707	SOUTH DENVER	Lateral, Private Building		No	No	230	
(RV14)1529 - (RV14)2833	410	WEST 8TH	Cleanout/Defective, Private		No	No	864	292

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(RV14)1529 - (RV14)2833	410	WEST 8TH	Cleanout/Defective, Private		No	No	706	292
(RV14)1530 - (RV14)1529	219	WEST 8TH	Water Meter		No	No	864	297
(RV14)1531 - (RV14)1530	713	SOUTH COMMERCE	Lateral, Private Building		No	No	1,426	215
	204	W 8TH ST	Water Meter		No	No	1,080	
	213	WEST 8TH	Lateral, Private Building		No	No	230	
(RV14)1532 - (RV14)1531	201	W 8TH ST	Water Meter		No	No	864	233
	201	WEST 8TH	Water Valve Box		No	No	1,080	
	201	WEST 8TH	Lateral, Private Building		No	No	2,794	
	201	WEST 8TH	Mainline		No	No	0	
(RV14)1533 - (RV14)1532	115	WEST 8TH	Building Interior		No	No	0	224
	115	WEST 8TH	Cleanout/Defective, Private		No	No	1,584	
	115	WEST 8TH	Lateral, Private Building		No	No	1,584	
(RV14)1534 - (RV14)1057		S BOULDER AVE	No Building Leaks		No	No		122
(RV14)1831 - (RV14)1069	903	W MAIN STREET	USMH		No	No	0	306
	915	W MAIN STREET	Cleanout/Defective, Private		No	No	1,426	
	915	W MAIN STREET	Lateral, Private Building		No	No	216	
	915	W MAIN STREET	Cleanout/Defective, Private		No	No	3,874	
	915	W MAIN STREET	Lateral, Private Building		No	No	4,838	
	915	W MAIN STREET	Mainline		No	No	0	
(RV14)1832 - (RV14)1080	814	W 2ND STREET	Lateral, Private Building		No	No	475	148
(RV14)2009 - (RV14)2880	911	W B STREET	Cleanout/Defective, Private		No	No	965	128
	911	W B STREET	Cleanout/Defective, Private		No	No	2,909	
(RV14)2011 - (RV14)1092	1112	S OMAHA AVE	USMH		No	No	0	49
(RV14)2013 - (RV14)2063		2ND STREET	No Building Leaks		No	No		232
(RV14)2053 - (RV14)1046	UNK	N SEATTLE	USMH		No	No	0	350
(RV14)2063 - (RV14)1119		2ND STREET	No Building Leaks		No	No		138
(RV14)2148 - (RV14)1328		S CUMBERLAND AVE	No Building Leaks		No	No		253

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(RV14)2175 - (RV14)2851		W 2ND PL	No Building Leaks		No	No		135
(RV14)2176 - (RV14)2851	1400	W 2ND PL	Cleanout/Defective, Private		No	No	2,578	125
(RV14)2185 - (RV14)2846		2ND STREET	No Building Leaks		No	No		52
(RV14)2194 - (RV14)1831	809	W MAIN STREET	Lateral, Private Building		No	No	432	126
(RV14)2308 - (RV14)2309		S COBBLESTONE CT	No Building Leaks		No	No		123
(RV14)2309 - (RV14)2310		S RENO AVE	No Building Leaks		No	No		95
(RV14)2310 - (RV14)1099		S RENO AVE	No Building Leaks		No	No		301
(RV14)2311 - (RV14)2308		S SEATTLE AV	No Building Leaks		No	No		244
(RV14)2312 - (RV14)2311		S SEATTLE AVE	No Building Leaks		No	No		74
(RV14)2313 - (RV14)2308		S RENO AVE	No Building Leaks		No	No		213
(RV14)2807 - (RV14)1305		S QUANAH AVE	No Building Leaks		No	No		292
(RV14)2807A - (RV14)2807	1807	W 3RD PL	USMH		No	No	0	452
(RV14)2814 - (RV14)1095		S PHOENIX AVE	No Building Leaks		No	No		114
(RV14)2822 - (RV14)1030		W B STREET	No Building Leaks		No	No		402
(RV14)2823 - (RV14)1054		W B ST	No Building Leaks		No	No		
(RV14)2824 - (RV14)1050	808	W B STREET	Cleanout/Defective, Private		No	No	1,829	209
(RV14)2825 - (RV14)1085	1009	W MAIN STREET	Cleanout/Defective, Private		No	No	706	296
	1089	W MAIN STREET	Cleanout/Defective, Private		No	No	706	
(RV14)2826 - (RV14)1832	102	S HOUSTON AVE	Lateral, Public Building		No	No	3,110	265
(RV14)2828 - (RV14)1145		INDEPENDENCE	No Building Leaks		No	No		23
(RV14)2830 - (RV14)1213		W 5th STREET	No Building Leaks		No	No		398
(RV14)2833 - (RV14)1228	416	WEST 7TH	Cleanout/Defective, Private		No	No	2,794	335
	416	WEST 8TH	Mainline		No	No	0	
(RV14)2846 - (RV14)1098	1705	2ND STREET	Catch Basin		No	No	1,872	441
(RV14)2847 - (RV14)1075		MAIN STREET	No Building Leaks		No	No		54
(RV14)2848 - (RV14)1089		2ND STREET	No Building Leaks		No	No		140
(RV14)2849 - (RV14)1123	216	W 2ND CT	Cleanout/Defective, Private		No	No	864	264

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(RV14)2850 - (RV14)2849	1502	3RD STREET	Building Interior		No	No	0	283
	1315	S OMAHA AVE	Lateral, Private Building		No	No	864	
(RV14)2851 - (RV14)2848		2ND STREET	No Building Leaks		No	No		265
(RV14)2852 - (RV14)1309		S SEATTLE AVE	No Building Leaks		No	No		283
(RV14)2853 - (RV14)1308		S QUANAH AVE	No Building Leaks		No	No		307
(RV14)2880 - (RV14)1051		W B ST	No Building Leaks		No	No		175
(RV14)3396 - (RV14)1324	223	S ARLINGTON AVE	Cleanout/Defective, Private		No	No	648	344
	223	S ARLINGTON AVE	Cleanout/Defective, Private		No	No	432	
(RV14)3420 - (RV07)3001		WEST C STREET	No Building Leaks		No	No		304
(RV14)EOL - (RV14)1013	1010	W E STREET	Lateral, Private Building		No	No	1,296	194
(RV14)EOL - (RV14)1014	UNK	N INDEPENDANCE AVE	Lateral, Private Building		No	No	2,146	239
	UNK	N INDEPENDANCE AVE	Lateral, Private Building		No	No	648	
	UNK	N INDEPENDANCE AVE	Lateral, Private Building		No	No	648	
(RV14)EOL - (RV14)1015		N HOUSTON	No Building Leaks		No	No		77
(RV14)EOL - (RV14)1044	1708	W C PLACE	Mainline		No	No	0	177
(RV14)EOL - (RV14)1047		W C PL	No Building Leaks		No	No		144
(RV14)EOL - (RV14)1060		W B STREET	No Building Leaks		No	No		150
(RV14)EOL - (RV14)1070		W MAIN STREET	No Building Leaks		No	No		200
(RV14)EOL - (RV14)1075		MAIN STREET	No Building Leaks		No	No		63
(RV14)EOL - (RV14)1076		MAIN STREET	No Building Leaks		No	No		32
(RV14)EOL - (RV14)1093		S OMAHA AVE	No Building Leaks		No	No		73
(RV14)EOL - (RV14)1107		W 2ND PL	No Building Leaks		No	No		145
(RV14)EOL - (RV14)1107A		S VANCOUVER AVE	No Building Leaks		No	No		170
(RV14)EOL - (RV14)1111		W 2ND PL	No Building Leaks		No	No		205
(RV14)EOL - (RV14)1115		W 2ND PL	No Building Leaks		No	No		139
(RV14)EOL - (RV14)1115A		S UTAH AVE	No Building Leaks		No	No		112
(RV14)EOL - (RV14)1120	1300	W 2ND PL	Lateral, Public Building		No	No	1,080	249

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(RV14)EOL - (RV14)1120	1309	W 2ND STREET	Cleanout/Defective, Private		No	No	1,426	249
(RV14)EOL - (RV14)1121		S LOREDO AVE	No Building Leaks		No	No		182
(RV14)EOL - (RV14)1146A		W 3RD STREET	No Building Leaks		No	No		69
(RV14)EOL - (RV14)1149	318	S HOUSTON	Cleanout/Defective, Private		No	No	706	279
	806	W 3RD PL	Cleanout/Defective, Private		No	No	1,181	
(RV14)EOL - (RV14)1150	318	HOUSTON	Cleanout/Defective, Private		No	No	1,829	297
(RV14)EOL - (RV14)1155	318	S GLENWOOD AVENUE	Catch Basin		No	No	1,872	303
(RV14)EOL - (RV14)1300	1701	W BRADLEY LN	Mainline		No	No	0	196
(RV14)EOL - (RV14)1302		BRADLEY LN	No Building Leaks		No	No		373
(RV14)EOL - (RV14)1305		W 3RD ST	No Building Leaks		No	No		231
(RV14)EOL - (RV14)1310		S TULSA AVE	No Building Leaks		No	No		130
(RV14)EOL - (RV14)1327		BEAUMONT AVE	No Building Leaks		No	No		174
(RV14)EOL - (RV14)1532	806	SOUTH ARKANSAS	Cleanout/Defective, Public		No	No	1,238	192
	806	SOUTH ARKANSAS	Cleanout/Defective, Private		No	No	648	
	115	W 8TH ST	Water Meter		No	No	864	
	115	WEST 8TH	Lateral, Private Building		No	No	648	
	115	WEST 8TH	Mainline		No	No	0	
(RV14)EOL - (RV14)2185		2ND STREET	No Building Leaks		No	No		98
(RV14)EOL - (RV14)2847		MAIN STREET	No Building Leaks		No	No		199
(RV14)EOL - (RV14)2850		S OMAHA AVE	No Building Leaks		No	No		57
(RV14)EOL - (RV14)2852		S SEATTLE AVE	No Building Leaks		No	No		187
(RV14)EOL - (RV14)3396		W 2ND LN	No Building Leaks		No	No		205
(RV14)EOL-NW - (RV14)1076	1808	MAIN STREET	USMH		No	No	0	604
(RV14)EOL-S - (RV14)1116		S SEATTLE AVE	No Building Leaks		No	No		174
(RV14)EOL-W - (RV14)1116		S SEATTLE AVE	No Building Leaks		No	No		138
(RV23)1002 - (RV23)1775	301	N EL PASO	USMH		No	No	0	40
(RV23)1018 - (RV23)1774	301	N EL PASO	USMH		No	No	0	95

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(RV23)1018 - (RV23)1774	301	N EL PASO	Lateral, Private Building		No	No	1,656	95
(RV23)1019 - (RV23)1483		N EL PASO	No Building Leaks		No	No		60
(RV23)1020 - (RV23)1482	301	N EL PASO	Inlet		No	No	1,872	246
	301	N EL PASO	Cleanout/Missing Cap, Private		No	No	3,600	
	301	N EL PASO	USMH		No	No	0	
	301	N EL PASO	Cleanout/Defective, Private		No	No	2,880	
(RV23)1027 - (RV23)1028	315	W C ST	Cleanout/Defective, Private		No	No	360	230
(RV23)1028 - (RV23)2058	702	W C ST	Mainline		No	No	0	285
	702	W C STREET	Lateral, Private Building		No	No	2,419	
	702	W C STREET	Cleanout/Defective, Private		No	No	1,930	
(RV23)1048 - (RV23)1482		N FARGO AVE	No Building Leaks		No	No		300
(RV23)1049 - (RV23)1048	615	W B ST	Lateral, Private Building		No	No	1,080	
(RV23)1065 - (RV23)1048		N FARGO AVE	No Building Leaks		No	No		325
(RV23)1066 - (RV23)1065	701	S GLENWOOD AVENUE	USMH		No	No	0	233
(RV23)1077 - (RV23)1476	600	W 2ND ST	Mainline		No	No	0	318
(RV23)1374 - (RV23)1521		E 5TH STREET	No Building Leaks		No	No		245
(RV23)1473 - (RV23)1474	330	S EL PASO AVE	Mainline		No	No	0	282
	414	S EL PASO AVE	Lateral, Private Building		No	No	1,080	
(RV23)1474 - (RV23)1475	300	S EL PASO AVE	Mainline		No	No	0	369
(RV23)1475 - (RV23)1476	200	S EL PASO AVE	USMH		No	No	0	301
	200	S EL PASO AVE	DSMH		No	No	0	
	200	S EL PASO AVE	Mainline		No	No	0	
(RV23)1476 - (RV23)1477		S EL PASO AVE	No Building Leaks		No	No		330
(RV23)1477 - (RV23)1065	500	W MAIN ST	Lateral, Private Building		No	No	1,440	398
	500	W MAIN ST	USMH		No	No	0	
(RV23)1482 - (RV23)1018	301	N EL PASO	Inlet		No	No	1,872	50
(RV23)1483 - (RV23)2358		W PARKWAY AVENUE	No Building Leaks		No	No		30

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(RV23)1486 - (RV23)UNK		W PARKWAY AVENUE	No Building Leaks		No	No		120
(RV23)1487 - (RV23)1483		W PARKWAY AVENUE	No Building Leaks		No	No		520
(RV23)1488 - (RV23)1487	405	W PARKWAY AVENUE	USMH		No	No	0	87
(RV23)1489 - (RV23)1536	201	N ARKANSAS AVENUE	Water Meter		No	No	2,131	268
	311	W C ST	USMH		No	No	0	
(RV23)1491 - (RV23)2858		W B ST	No Building Leaks		No	No		
(RV23)1492 - (RV23)1493	106	S COMMERCE AVE	Cleanout/Defective, Private		No	No	2,376	333
	108	S COMMERCE AVE	Water Meter		No	No	3,384	
	110	S COMMERCE AVE	Water Meter		No	No	2,880	
	303	W MAIN ST	Lateral, Private Building		No	No	1,930	
	311	W MAIN ST	Lateral, Private Building		No	No	950	
	311	W MAIN ST	Cleanout/Defective, Private		No	No	216	
(RV23)1493 - (RV23)1494		S COMMERCE AVE	No Building Leaks		No	No		308
(RV23)1494 - (RV23)2167	111	S BOULDER AVE	USMH		No	No	0	118
(RV23)1495 - (RV23)1569		S ARKANSAS AVENUE	No Building Leaks		No	No		417
(RV23)1496 - (RV23)1492	115	S DENVER AVE	USMH		No	No	0	159
(RV23)1497 - (RV23)1493	110	S COMMERCE AVE	DSMH		No	No	0	144
	122	S COMMERCE AVE	USMH		No	No	0	
(RV23)1498 - (RV23)1494	201	S BOULDER AVE	USMH		No	No	0	150
(RV23)1499 - (RV23)1495		S ARKANSAS AVENUE	No Building Leaks		No	No		146
(RV23)1500 - (RV23)1499		S ARKANSAS AVENUE	No Building Leaks		No	No		28
(RV23)1501 - (RV23)1496	200	S DENVER AVE	Mainline		No	No	0	297
	304	S DENVER AVE	USMH		No	No	0	
(RV23)1502 - (RV23)1497	201	S COMMERCE AVE	Mainline		No	No	0	
	202	S COMMERCE AVE	Cleanout/Defective, Public		No	No	1,080	
(RV23)1503 - (RV23)1498	210	S BOULDER AVE	Mainline		No	No	0	300
	301	S BOULDER AVE	USMH		No	No	0	

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(RV23)1504 - (RV23)1501	312	S DENVER AVE	Mainline		No	No	0	398
(RV23)1505 - (RV23)1502	304	S COMMERCE AVE	Cleanout/Defective, Private		No	No	1,440	
	304	S COMMERCE AVE	Mainline		No	No	0	
	318	S COMMERCE AVE	USMH		No	No	0	
(RV23)1506 - (RV23)1503	304	S BOULDER AVE	Lateral, Private Building		No	No	922	300
	313	S BOULDER AVE	Water Meter		No	No	1,080	
	313	S BOULDER AVE	Lateral, Private Building		No	No	1,296	
(RV23)1507 - (RV23)1500		S ARKANSAS AVENUE	No Building Leaks		No	No		116
(RV23)1508 - (RV23)1507	210	S ARKANSAS AVE	Lateral, Private Building		No	No	360	406
	210	S ARKANSAS AVENUE	Water Valve Box		No	No	1,440	
	210	S ARKANSAS AVENUE	USMH		No	No	0	
	210	S ARKANSAS AVENUE	Lateral, Private Building		No	No	360	
	210	S ARKANSAS AVENUE	Water Valve Box		No	No	1,440	
	210	S ARKANSAS AVENUE	Lateral, Private Building		No	No	360	
(RV23)1509 - (RV23)1504	328	S DENVER AVE	Mainline		No	No	0	308
	400	S DENVER AVE	USMH		No	No	0	
(RV23)1510 - (RV23)1505	318	S COMMERCE AVE	Mainline		No	No	0	367
	400	S COMMERCE AVE	USMH		No	No	0	
(RV23)1511 - (RV23)1506	205	W 3RD PL	Cleanout/Defective, Private		No	No	490	
	125	W 3RD PL	Lateral, Private Building		No	No	1,080	196
	125	W 3RD PL	Lateral, Private Building		No	No	1,296	
	125	W 3RD PL	Lateral, Private Building		No	No	1,296	
(RV23)1512 - (RV23)1509	406	S DENVER AVE	Lateral, Private Building		No	No	922	543
	406	S DENVER AVE	Mainline		No	No	0	
	500	S DENVER AVE	USMH		No	No	0	
(RV23)1513 - (RV23)1510	400	S COMMERCE AVE	Water Meter		No	No	648	369
	400	S COMMERCE AVE	Lateral, Private Building		No	No	1,440	

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(RV23)1513 - (RV23)1510	400	S COMMERCE AVE	Lateral, Private Building		No	No	1,296	369
	400	S COMMERCE AVE	Lateral, Public Building		No	No	1,930	
	407	S COMMERCE AVE	Lateral, Private Building		No	No	648	
	407	S COMMERCE AVE	Lateral, Private Building		No	No	2,160	
	410	S COMMERCE AVE	Lateral, Private Building		No	No	1,440	
	413	S COMMERCE AVE	USMH		No	No	0	
(RV23)1514 - (RV23)1511	408	S BOULDER AVE	Lateral, Private Building		No	No	1,080	442
(RV23)1515 - (RV23)1512	502	S DENVER AVE	Mainline		No	No	0	266
	514	S DENVER AVE	USMH		No	No	0	
(RV23)1518 - (RV23)1513	503	S COMMERCE AVE	Mainline		No	No	0	302
	504	S COMMERCE AVE	Lateral, Private Building		No	No	1,613	
	600	S COMMERCE AVE	USMH		No	No	0	
	510	W 6TH ST	Lateral, Public Building		No	No	648	
(RV23)1519 - (RV23)1514	509	S BOULDER AVE	Cleanout/Defective, Private		No	No	2,160	299
(RV23)1520 - (RV23)1519	119	W 6TH ST	Lateral, Private Building		No	No	475	144
(RV23)1521 - (RV23)1508	318	S ARKANSAS AVENUE	Lateral, Private Building		No	No	1,426	552
	318	S ARKANSAS AVENUE	Cleanout/Defective, Private		No	No	950	
	410	S ARKANSAS AVENUE	Cleanout/Missing Cap, Private		No	No	1,426	
(RV23)1522 - (RV23)1521		W 6 TH	No Building Leaks		No	No		308
(RV23)1523 - (RV23)1518	608	S COMMERCE AVE	Mainline		No	No	0	304
	702	S COMMERCE AVE	USMH		No	No	0	
(RV23)1524 - (RV23)1519	607	S BOULDER AVE	Lateral, Private Building		No	No	7,200	297
	616	S BOULDER AVE	Lateral, Private Building		No	No	893	
	125	W 6TH ST	Cleanout/Missing Cap, Private		No	No	4,752	
(RV23)1525 - (RV23)1526		W 7TH ST	No Building Leaks		No	No		280
(RV23)1526 - (RV23)1522		W 7TH ST	No Building Leaks		No	No		319
(RV23)1527 - (RV23)1526		S ARKANSAS AVENUE	No Building Leaks		No	No		220

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(RV23)1528 - (RV23)1523	702	S COMMERCE AVE	Water Meter		No	No	1,440	289
(RV23)1536 - (RV23)1560		W C ST	No Building Leaks		No	No		32
(RV23)1556 - (RV23)1488		N COMMERCE AVE	No Building Leaks		No	No		318
(RV23)1557 - (RV23)1556	300	N COMMERCE AVE	Inlet		No	No	1,872	319
(RV23)1558 - (RV23)1557	UNK	N ARKANSAS AVENUE	USMH		No	No	0	104
(RV23)1559 - (RV23)1558	UNK	N ARKANSAS AVENUE	USMH		No	No	0	253
(RV23)1560 - (RV23)1562	201	S ARKANSAS AVENUE	Building Interior		No	No	0	138
	201	S ARKANSAS AVENUE	Lateral, Private Building		No	No	1,181	
	201	S ARKANSAS AVENUE	Lateral, Private Building		No	No	1,181	
	201	S ARKANSAS AVENUE	Lateral, Private Building		No	No	1,440	
	201	S ARKANSAS AVENUE	Lateral, Private Building		No	No	1,181	
	201	S ARKANSAS AVENUE	Building Interior		No	No	0	
	201	S ARKANSAS AVENUE	Building Interior		No	No	0	
(RV23)1561 - (RV23)2108	204	N ARKANSAS AVENUE	Cleanout/Defective, Private		No	No	216	151
(RV23)1562 - (RV23)1563		S ARKANSAS AVENUE	No Building Leaks		No	No		62
(RV23)1563 - (RV23)1567	212	N ARKANSAS AVE	Lateral, Private Building		No	No	720	223
(RV23)1567 - (RV23)1559		N ARKANSAS AVENUE	No Building Leaks		No	No		188
(RV23)1569 - (RV23)1563	100	N ARKANSAS AVE	Mainline		No	No	0	310
(RV23)1774 - (RV23)1776		N EL PASO	No Building Leaks		No	No		68
(RV23)1775 - (RV23)1774		N EL PASO	No Building Leaks		No	No		30
(RV23)1776 - (RV23)1019		N EL PASO	No Building Leaks		No	No		24
(RV23)2058 - (RV23)1482	301	N EL PASO	Mainline		No	No	0	305
(RV23)2108 - (RV23)2109		N ARKANSAS AVENUE	No Building Leaks		No	No		35
(RV23)2109 - (RV23)2110	100	W MAIN STREET	Lateral, Private Building		No	No	2,419	112
(RV23)2110 - (RV23)2111		N ARKANSAS AVENUE	No Building Leaks		No	No		65
(RV23)2111 - (RV23)1569		S ARKANSAS AVENUE	No Building Leaks		No	No		30
(RV23)2167 - (RV23)1495		S ARKANSAS AVENUE	No Building Leaks		No	No		104

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(RV23)2357 - (RV23)2358		W PARKWAY AVENUE	No Building Leaks		No	No		340
(RV23)2358 - (RV23)2873	UNK	W E ST	Mainline		No	No	0	238
(RV23)2827 - (RV23)1066	701	S GLENWOOD	Lateral, Private Building		No	No	1,296	185
	701	S GLENWOOD AVE	USMH		No	No	0	
	701	S GLENWOOD AVENUE	Lateral, Private Building		No	No	1,080	
(RV23)2855 - (RV23)1049	700	W B ST	Lateral, Private Building		No	No	720	251
(RV23)2856 - (RV23)1048		W B ST	No Building Leaks		No	No		278
(RV23)2857 - (RV23)2856	400	W B ST	USMH		No	No	0	184
(RV23)2858 - (RV23)2859	310	DENVER	Cleanout/Defective, Private		No	No	0	201
	121	W B ST	Lateral, Private Building		No	No	216	
	121	W B STREET	Lateral, Private Building		No	No	3,384	
(RV23)2859 - (RV23)2859A		W B ST	No Building Leaks		No	No		17
(RV23)2859A - (RV23)1489	312	W B ST	Lateral, Private Building		No	No	1,426	233
	312	W B ST	Lateral, Private Building		No	No	475	
	312	W B ST	Lateral, Private Building		No	No	475	
	308	W B STREET	Lateral, Private Building		No	No	2,419	
	308	W B STREET	Cleanout/Defective, Private		No	No	965	
	308	W B STREET	Lateral, Private Building		No	No	950	
	308	W B STREET	Lateral, Private Building		No	No	965	
	312	W B STREET	Mainline		No	No	0	
	312	W B STREET	Lateral, Private Building		No	No	965	
(RV23)2859B - (RV23)2859A	301	W B ST	Lateral, Private Building		No	No	2,909	114
(RV23)2873 - (RV07)2153		GLENWOOD AVENUE	No Building Leaks		No	No		
(RV23)2874 - (RV23)MAINLINE		S ARKANSAS AVENUE	No Building Leaks		No	No		165
(RV23)EOL - (RV23)1020		W C ST	No Building Leaks		No	No		290
(RV23)EOL - (RV23)1048		N FARGO AVE	No Building Leaks		No	No		188
(RV23)EOL - (RV23)1066	708	W MAIN STREET	Lateral, Private Building		No	No	1,613	290

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(RV23)EOL - (RV23)1077		2ND STREET	No Building Leaks		No	No		212
(RV23)EOL - (RV23)1477		W MAIN ST	No Building Leaks		No	No		233
(RV23)EOL - (RV23)1489		W C STREET	No Building Leaks		No	No		154
(RV23)EOL - (RV23)1520	119	W 6TH ST	Cleanout/Defective, Private		No	No	1,930	62
	119	W 6TH ST	Cleanout/Defective, Private		No	No	1,296	
	119	W 6TH ST	Lateral, Private Building		No	No	1,080	
	119	W 6TH ST	Lateral, Private Building		No	No	1,296	
(RV23)EOL - (RV23)EOL2		S ARKANSAS AVENUE	No Building Leaks		No	No		66
(RV23)EOL2 - (RV23)2874	718	S ARKANSAS AVENUE	Cleanout/Defective, Private		No	No	950	120
	110	W 8TH STREET	Cleanout/Missing Cap, Private		No	No	1,080	

Smoke Testing Report

Project Number 18-2455-00 Russellville, Arkansas

<i>Structure</i>	<i>Address</i>	<i>Street Name</i>	<i>Smoke Leak Source</i>	<i>Potential Cross Connection</i>	<i>Recommended for Dyed Water Flooding</i>	<i>Smoke Along Main Sewer Line</i>	<i>Inflow Rate (gpd)</i>	<i>Length (ft)</i>
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<i>Source Summary</i>							<i>Totals</i>	<i>589,378</i>	<i>133531</i>
			Area Drain					1	
			Building Interior					16	
			Catch Basin					4	
			Cleanout/Defective, Private					130	
			Cleanout/Defective, Public					2	
			Cleanout/Missing Cap, Private					12	
			DSMH					10	
			Inlet					4	
			Lateral, Private Building					144	
			Lateral, Public Building					14	
			Mainline					45	
			Storm Ditch					3	
			Unmapped MH					1	
			USMH					84	
			Water Meter					15	
			Water Valve Box					3	
			Total Sources					488	

APPENDIX D

DYED WATER FLOODING REPORT

Dyed Water Flooding Report

Project Number 18-2455-00 Russellville, Arkansas

<i>Line Segment</i>	<i>Street Name</i>	<i>Location Flooded</i>	<i>Dye MH No</i>	<i>Illegal Conditions</i>	<i>Flow Rate</i>	<i>Recommended for TV Inspection</i>
(RV07)6020 - (RV07)6019	EAST 10TH STREET	Storm Ditch	(RV07)6019	Main Line Defect	25.00	Yes
(RV07)6356 - (RV07)6355	S PITTSBURG AVE	Deprs Grass Area	(RV07)6355	Main Line Defect	8.50	Yes
(RV14)1013 - (RV14)1009	WEST E STREET	Storm Ditch	(RV14)1009	Main Line Defect	100.00	Yes
(RV14)1015 - (RV14)1014		Storm Ditch		Parallel Connection	27.76	Yes
		Storm Ditch		Main Line Defect	9.00	Yes
(RV14)1032 - (RV14)1030	WEST C STREET	Storm Ditch	(RV14)1030	Main Line Defect	34.46	Yes
(RV14)1044 - (RV14)1036		Deprs Grass Area	(RV14)1036	Main Line Defect	13.49	Yes
(RV14)1047 - (RV14)1046	WEST C PLACE	Storm Ditch	(RV14)1046	Main Line Defect	100.00	Yes
(RV14)1051 - (RV14)1005	WEST B STREET	Deprs Paved Area	(RV14)1051	Main Line Defect	11.61	Yes
(RV14)1052 - (RV14)1024		Deprs Grass Area	(RV14)1024	Main Line Defect	40.00	Yes
(RV14)1058 - (RV14)1032	N. MUSKOGEE	Storm Ditch	(RV14)1032	Parallel Connection	85.37	Yes
(RV14)1060 - (RV14)1059	WEST B STREET	Storm Ditch	(RV14)1059	Main Line Defect	193.41	Yes
(RV14)1061 - (RV14)1060		Storm Ditch	(RV14)1060	Parallel Connection	75.00	Yes
(RV14)1069 - (RV14)1070	W MAIN STREET	Deprs Paved Area		Main Line Defect	3.00	No
(RV14)1074 - (RV14)1073	MAIN	Catch Basin		Direct Connection	15.00	Yes
(RV14)1075 - (RV14)1074		Catch Basin		Main Line Defect	3.00	Yes
		Catch Basin		Direct Connection	15.00	Yes
(RV14)1080 - (RV14)1083	WEST 2ND STREET	Deprs Grass Area	(RV14)1083	Main Line Defect	98.00	Yes
(RV14)1081 - (RV14)1069	JONESBORO	Catch Basin		Direct Connection	15.00	Yes
(RV14)1110 - (RV14)1109	W 3ND STREET	Deprs Paved Area		Main Line Defect	12.00	No
(RV14)1146 - (RV14)1080	HOUSTON	Deprs Grass Area	(RV14)1080	Main Line Defect	50.00	Yes
(RV14)1153 - (RV14)1148	S GLENDALE AVE	Deprs Grass Area	(RV14)1148	Main Line Defect	75.00	Yes
(RV14)1213A - (RV14)116	WEST 4TH STREET	Deprs Grass Area	(RV14)1162	Main Line Defect	8.09	Yes
(RV14)1308A - (RV14)130	WEST 3RD STREET	Deprs Paved Area	(RV14)1308	Main Line Defect	19.37	Yes
(RV14)1516 - (RV14)1220	WEST 6TH STREET	Deprs Paved Area		Main Line Defect	6.00	Yes

Project Number 18-2455-00 Russellville, Arkansas

Line Segment	Street Name	Location Flooded	Dye MH No	Illegal Conditions	Flow Rate	Recommended for TV Inspection
(RV14)1532 - (RV14)1531	WEST 8TH STREET	Deprs Paved Area	(RV14)1531	Main Line Defect	21.69	Yes
(RV14)1831 - (RV14)1069	W MAIN STREET	Deprs Paved Area		Main Line Defect	3.00	No
(RV14)2833 - (RV14)1228	WEST 8TH STREET	Storm Ditch	(RV14)1228	Main Line Defect	10.68	Yes
(RV14)2846 - (RV14)1098	2ND STREET	Catch Basin	(RV14)1098	Direct Connection	13.82	Yes
(RV14)EOL - (RV14)1044	W MAIN STREET	Deprs Paved Area		Main Line Defect	2.00	No
(RV14)EOL - (RV14)1155	HOUSTON	Catch Basin	(RV14)1155	Direct Connection	4.69	Yes
(RV14)EOL - (RV14)1300	S. QUANAH	Deprs Grass Area	(RV14)1300	Main Line Defect	8.73	Yes
(RV14)EOL - (RV14)1532	WEST 8TH STREET	None		Main Line Defect	0.00	No
(RV23)1020 - (RV23)1482	WEST C STREET	Catch Basin	(RV23)1482	Direct Connection	68.00	Yes
(RV23)1028 - (RV23)2058	W C STREET	Deprs Paved Area		Main Line Defect	3.00	No
(RV23)1077 - (RV23)1476	W 2ND STREET	Deprs Paved Area		Main Line Defect	3.00	No
(RV23)1473 - (RV23)1474	EL PASO AVE	Deprs Paved Area		Main Line Defect	7.00	No
(RV23)1474 - (RV23)1475		Deprs Paved Area		No Sources Found	0.00	No
(RV23)1475 - (RV23)1476	RL PASO AVE	Deprs Paved Area		Main Line Defect	5.00	No
(RV23)1482 - (RV23)1018	301 N El Paso	Catch Basin		Direct Connection	10.00	No
(RV23)1501 - (RV23)1496	DENVER	Deprs Paved Area		Main Line Defect	7.00	No
(RV23)1502 - (RV23)1497	COMMERCIAL AVE	Deprs Paved Area		Main Line Defect	5.00	No
(RV23)1503 - (RV23)1498	DENVER	Deprs Paved Area		Main Line Defect	5.00	No
(RV23)1504 - (RV23)1501		Deprs Paved Area		Main Line Defect	7.00	No
(RV23)1505 - (RV23)1502	COMMERCE	Deprs Paved Area		Main Line Defect	3.00	No
(RV23)1509 - (RV23)1504	DENVER	Deprs Paved Area		Main Line Defect	12.00	No
(RV23)1510 - (RV23)1505	COMMERCE	Deprs Paved Area		Main Line Defect	3.00	No
(RV23)1512 - (RV23)1509	S. DENVER	Deprs Paved Area	(RV23)1509	Main Line Defect	7.16	Yes
(RV23)1515 - (RV23)1512	S. DENVER AVENUE	Deprs Paved Area	(RV23)1512	Main Line Defect	23.71	Yes
(RV23)1518 - (RV23)1513	COMMERCE	Deprs Paved Area		Main Line Defect	3.00	No
(RV23)1523 - (RV23)1518		Deprs Paved Area		Main Line Defect	3.00	No
(RV23)1557 - (RV23)1556	N. COMMERCE AVE	Storm Sewer	(RV23)1556	Direct Connection	0.00	Yes

Project Number 18-2455-00 Russellville, Arkansas

Line Segment	Street Name	Location Flooded	Dye MH No	Illegal Conditions	Flow Rate	Recommended for TV Inspection
(RV23)1569 - (RV23)1563	ARKANSAS	Deprs Paved Area		Main Line Defect	3.00	No
(RV23)2058 - (RV23)1482	WEST C STREET	Deprs Paved Area	(RV23)1482	Main Line Defect	18.93	Yes
(RV23)2358 - (RV23)2873	W E STREET	Deprs Paved Area		Main Line Defect	1.00	No
(RV23)2859A - (RV23)148	WEST B STREET	Deprs Paved Area	(RV23)1489	Main Line Defect	3.95	Yes

Total Line Segments: 54

Total Flow (gpm): 1,309.42

Total Recommended for TV: 32

Total Line Segments Positive: 53

Total Line Segments Negative: 1

Total Sources Found: 55

APPENDIX E

TELEVISION INSPECTION REPORT

TV Inspection Report

Project Number 18-2455-00 Russellville, Arkansas

<i>Line Segment</i>						<i>-----Repair-----</i>			
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>	
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>	
(RV07)1448 - (RV07)1818									
2/28/2011 ESMT EL PASO									
18		270	271						
				0	Upstream Manhole	0.00	0	\$0.00	
				0	Begin TV Observation	0.00	0	\$0.00	
				61	Abandoned Connection	0.00	0	\$0.00	
				139	Abandoned Connection	0.00	0	\$0.00	
				202	Abandoned Connection	0.00	0	\$0.00	
				370	Downstream Manhole	0.00	0	\$0.00	
				370	End TV Observation	0.00	0	\$0.00	
(RV07)1449 - (RV07)1448									
2/28/2011 ESMT EL PASO									
18		268	277						
				0	Upstream Manhole	0.00	0	\$0.00	
				0	Begin TV Observation	0.00	0	\$0.00	
				34	Abandoned Connection	0.00	0	\$0.00	
				117	Abandoned Connection	0.00	0	\$0.00	
				211	Abandoned Connection	0.00	0	\$0.00	
				268	Downstream Manhole	0.00	0	\$0.00	
				268	End TV Observation	0.00	0	\$0.00	

<i>Line Segment</i>						<i>-----Repair-----</i>			
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>	
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>	
(RV07)1726 - (RV07)1738									
2/6/2011 ESMT EL PASO									
18		99	101						
				0	Upstream Manhole	0.00	0	\$0.00	
				0	Begin TV Observation	0.00	0	\$0.00	
				99	Downstream Manhole	0.00	0	\$0.00	
				99	End TV Observation	0.00	0	\$0.00	
(RV07)1738 - (RV07)1830									
2/28/2011 ESMT EL PASO									
18		507	507						
				0	Begin TV Observation	0.00	0	\$0.00	
				4	Upstream Manhole	0.00	0	\$0.00	
				190	Joint w/ Light Roots	0.01	122	****	
				486	Joint w/ Light Roots	0.01	21	****	
				486	Joint w/ Infiltration	0.05	0	****	
				507	Downstream Manhole	0.00	0	\$0.00	
				507	End TV Observation	0.00	0	\$0.00	

<i>Line Segment</i>		<i>-----Repair-----</i>						
<i>Date</i>	<i>Street</i>	<i>Segment</i>	<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>	
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>
(RV07)1829 - (RV07)1738								
2/6/2011 ESMT EL PASO								
18		32		91				
			0	Upstream Manhole	0.00		0	\$0.00
			0	Begin TV Observation	0.00		0	\$0.00
			9	Camera Blocked	0.00		0	\$0.00
			9	Joint w/ Severe Offset	0.10	Repair	5	\$3,500.00
			9	End TV Observation	0.00		0	\$0.00
			9	Pipe Material Change	0.00		0	\$0.00
			68	Camera Blocked	0.00		0	\$0.00
			68	End TV Observation	0.00		0	\$0.00
			91	Downstream Manhole	0.00		0	\$0.00
			91	Begin TV Observation	0.00		0	\$0.00
(RV07)2201 - (RV07)2202								
3/1/2011 PARKWAY								
24		304		307				
			0	Upstream Manhole	0.00		0	\$0.00
			0	Begin TV Observation	0.00		0	\$0.00
			304	Downstream Manhole	0.00		0	\$0.00
			304	End TV Observation	0.00		0	\$0.00

<i>Line Segment</i>						<i>-----Repair-----</i>			
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>	
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(ft)</i>		<i>\$/gpd</i>	
(RV07)2202 - (RV07)2203									
3/1/2011	PARKWAY								
24		360	360						
				0	Upstream Manhole	0	0.00	0	\$0.00
				0	Begin TV Observation	0	0.00	0	\$0.00
				269	Joint w/ Infiltration	0	0.05	0	****
				360	Downstream Manhole	0	0.00	0	\$0.00
				360	End TV Observation	0	0.00	0	\$0.00
(RV07)2203 - (RV07)2204									
3/1/2011	PARKWAY								
24		128	135						
				0	Upstream Manhole	0	0.00	0	\$0.00
				0	Begin TV Observation	0	0.00	0	\$0.00
				128	Downstream Manhole	0	0.00	0	\$0.00
				128	End TV Observation	0	0.00	0	\$0.00

<i>Line Segment</i>		<i>-----Repair-----</i>							
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>	
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>	
(RV07)2204 - (RV07)2205									
3/1/2011	PARKWAY								
24		322	322						
				0	Upstream Manhole	0.00	0	\$0.00	
				0	Begin TV Observation	0.00	0	\$0.00	
				322	Downstream Manhole	0.00	0	\$0.00	
				322	End TV Observation	0.00	0	\$0.00	
(RV07)6020 - (RV07)6019									
2/17/2011	10TH ST								
8	8	370	384						
				0	Upstream Manhole	0.00	0	\$0.00	
				0	Begin TV Observation	0.00	0	\$0.00	
				41	Joint w/ Infiltration	0.05	Grout	0	****
				41	Pipe w/ Circular Crack	0.10	Repair	5	\$3,750.00 26.042
				42	Service Connection w/ Break-In	0.15	Repair	5	\$3,750.00 17.361
				72	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$3,750.00 26.042
				141	Service Connection	0.00		0	\$0.00
				161	Sag Begins	0.00		0	\$0.00
				190	Joint w/ Light Roots	0.01	Grout	0	****
				191	Service Connection	0.00		0	\$0.00
				221	Service Connection w/ Break-In	0.15	Repair	5	\$3,750.00 17.361
				243	Joint w/ Light Roots	0.01	Grout	0	****
				296	Service Connection	0.00		0	\$0.00
				311	Joint w/ Light Roots	0.01	Grout	0	****
				326	Joint w/ Light Roots	0.01	Grout	0	****
				342	Joint w/ Medium Roots	0.03	Grout	0	****
				370	Downstream Manhole	0.00		0	\$0.00
				370	End TV Observation	0.00		0	\$0.00

<i>Line Segment</i>		<i>-----Repair-----</i>						
<i>Date</i>	<i>Street</i>	<i>Segment</i>	<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>	
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>
(RV07)6087 - (RV07)6086								
1/21/2011	TAMPA							
10		247		247				
			0	Upstream Manhole	0.00		0	\$0.00
			0	Begin TV Observation	0.00		0	\$0.00
			98	Abandoned Connection	0.00		0	\$0.00
			125	Abandoned Connection	0.00		0	\$0.00
			167	Abandoned Connection	0.00		0	\$0.00
			194	Joint w/ Light Roots	0.01	Grout	0	****
			218	Joint w/ Infiltration	0.05	Grout	0	****
			225	Abandoned Connection	0.00		0	\$0.00
			247	Downstream Manhole	0.00		0	\$0.00
			247	End TV Observation	0.00		0	\$0.00
(RV07)6091 - (RV07)6090								
2/17/2011	13TH ST							
10		57		59				
			0	Upstream Manhole	0.00		0	\$0.00
			0	Begin TV Observation	0.00		0	\$0.00
			30	Pipe Material Change	0.00		0	\$0.00
			47	Pipe Material Change	0.00		0	\$0.00
			57	Downstream Manhole	0.00		0	\$0.00
			57	End TV Observation	0.00		0	\$0.00

<i>Line Segment</i>		<i>-----Repair-----</i>						
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>
(RV07)6092 - (RV07)6091								
2/17/2011 13TH ST								
6		155	211					
0					Begin TV Observation	0.00	0	\$0.00
56					Joint w/ Light Roots	0.01	0	****
66					Joint w/ Light Roots	0.01	0	****
76					Joint w/ Light Roots	0.01	0	****
88					Service Connection	0.00	0	\$0.00
155					Downstream Manhole	0.00	0	\$0.00
155					End TV Observation	0.00	0	\$0.00
155					Service Connection w/Defect	0.15	5	\$4,000.00 18.519
(RV07)6097 - (RV07)6093								
2/17/2011 TAMPA								
10		106	353					
0					Reverse Setup	0.00	0	\$0.00
0					Downstream Manhole	0.00	0	\$0.00
0					Begin TV Observation	0.00	0	\$0.00
53					Service Connection	0.00	0	\$0.00
131					Service Connection	0.00	0	\$0.00
131					Service Connection	0.00	0	\$0.00
198					Camera Blocked	0.00	0	\$0.00
198					Joint w/ Heavy Roots	0.05	0	****

<i>Line Segment</i>				<i>-----Repair-----</i>				
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>
				198	End TV Observation	0.00	0	\$0.00
				315	End TV Observation	0.00	0	\$0.00
				345	Camera Blocked	0.00	0	\$0.00
				345	Joint w/ Heavy Roots	0.05	0	****
				353	Upstream Manhole	0.00	0	\$0.00
				353	Begin TV Observation	0.00	0	\$0.00

(RV07)6135 - (RV07)6134

2/17/2011 ROCHESTER

12

230

245

0	Upstream Manhole	0.00	0	\$0.00
0	Begin TV Observation	0.00	0	\$0.00
86	Joint w/ Medium Roots	0.03	0	****
101	Joint w/ Heavy Roots	0.05	0	****
122	Joint w/ Light Roots	0.01	14	****
162	Joint w/ Medium Roots	0.03	0	****
168	Joint w/ Light Roots	0.01	0	****
178	Joint w/ Medium Roots	0.03	0	****
198	Joint w/ Medium Roots	0.03	0	****
209	Joint w/ Light Roots	0.01	0	****
219	Joint w/ Heavy Roots	0.05	0	****
230	Downstream Manhole	0.00	0	\$0.00
230	End TV Observation	0.00	0	\$0.00

<i>Line Segment</i>					<i>-----Repair-----</i>				
<i>Date</i>	<i>Street</i>	<i>Segment</i>			<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>	
(RV07)6356 - (RV07)6355									
2/16/2011	PITTSBURG AVE			243					
6	5	243							
					0 Upstream Manhole	0.00	0	\$0.00	
					0 Begin TV Observation	0.00	0	\$0.00	
					49 Joint w/ Infiltration	0.05	0	****	
					49 Pipe w/ Hole	0.50	5	\$4,300.00	5.972
					195 Service Connection	0.00	0	\$0.00	
					243 Downstream Manhole	0.00	0	\$0.00	
					243 End TV Observation	0.00	0	\$0.00	
(RV14)1013 - (RV14)1009									
1/1/2004	W E ST			299					
6	8	299							
					0 Upstream Manhole	0.00	0	\$0.00	
					0 Begin TV Observation	0.00	0	\$0.00	
					73 Joint w/ Infiltration	0.05	32	****	
					73 Dyed Water Data	0.00	32	\$0.00	
					74 Service Connection w/Defect	0.15	5	\$3,750.00	17.361
					107 Pipe Material Change	0.00	0	\$0.00	
					110 Service Connection	0.00	0	\$0.00	
					112 Pipe Material Change	0.00	0	\$0.00	
					114 Joint w/ Infiltration	0.05	8	****	
					114 Dyed Water Data	0.00	8	\$0.00	
					128 Joint w/ Infiltration	0.05	0	****	
					128 Service Connection	0.00	0	\$0.00	
					128 Dyed Water Data	0.00	0	\$0.00	
					149 Service Connection w/Defect	0.15	5	\$3,750.00	17.361
					169 Joint w/ Light Roots	0.01	0	****	

<i>Line Segment</i>				<i>-----Repair-----</i>				
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>(gpm)</i>		<i>(ft)</i>		<i>\$/gpd</i>
			174	0.01	Grout	0	****	
			192	0.01	Grout	0	****	
			201	0.01	Grout	0	****	
			204	0.10	Repair	5	\$3,750.00	26.042
			206	0.50	Repair	5	\$3,750.00	5.208
			208	0.10	Repair	5	\$3,750.00	26.042
			208	0.00	Service Connection	0	\$0.00	
			292	0.10	Repair	5	\$3,750.00	26.042
			299	0.00	Downstream Manhole	0	\$0.00	
			299	0.00	End TV Observation	0	\$0.00	

(RV14)1015 - (RV14)1014

2/3/2011 W E ST

6 5 160 302

			0	0.00	Upstream Manhole	0	\$0.00	
			0	0.00	Begin TV Observation	0	\$0.00	
			14	0.00	Pipe Material Change	0	\$0.00	
			19	0.07	Grout	1	****	
			19	0.00	Pipe Material Change	0	\$0.00	
			39	0.00	Pipe w/ Deposits	0	\$0.00	
			63	0.00	Service Connection	0	\$0.00	
			80	0.00	Service Connection	0	\$0.00	
			135	0.05	Grout	0	****	
			280	0.00	Camera Blocked	0	\$0.00	
			280	0.10	Repair	5	\$3,750.00	26.042
			280	0.00	End TV Observation	0	\$0.00	
			280	0.00	Dyed Water Data	0	\$0.00	
			283	0.05	Grout	0	****	
			284	0.05	Grout	0	****	

<i>Line Segment</i>				<i>-----Repair-----</i>						
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>		
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>		
				284	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$3,750.00	26.042
				285	Pipe w/ Circular Crack	0.10	Repair	5	\$3,750.00	26.042
				287	Joint w/ Infiltration	0.05	Grout	0	****	
				287	Pipe w/ Circular Crack	0.10	Repair	5	\$3,750.00	26.042
				293	Joint w/ Infiltration	0.05	Grout	0	****	
				293	Pipe w/ Circular Crack	0.10	Repair	5	\$3,750.00	26.042
				293	Dyed Water Data	0.00		0	\$0.00	
				302	Downstream Manhole	0.00		0	\$0.00	
				302	Begin TV Observation	0.00		0	\$0.00	

(RV14)1030 - (RV14)1022

3/15/2011 C ST

21 10 384 384

0	Upstream Manhole	0.00		0	\$0.00	
0	Begin TV Observation	0.00		0	\$0.00	
384	Downstream Manhole	0.00		0	\$0.00	
384	End TV Observation	0.00		0	\$0.00	

(RV14)1031 - (RV14)T- CONNECTION

1/27/2011 1300 WEST C STREET

15 61 61

0	Upstream Manhole	0.00		0	\$0.00	
0	Begin TV Observation	0.00		0	\$0.00	
58	Pipe Material Change	0.00		0	\$0.00	

<i>Line Segment</i>				<i>-----Repair-----</i>				
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>
				61	Downstream Manhole	0.00	0	\$0.00
				61	End TV Observation	0.00	0	\$0.00
(RV14)1032 - (RV14)1030								
3/15/2011 C ST								
15		286	286					
				0	Downstream Manhole	0.00	0	\$0.00
				0	Begin TV Observation	0.00	0	\$0.00
				61	Pipe Material Change	0.00	0	\$0.00
				62	Service Connection w/ Break-In	0.15	Repair 5	\$4,000.00
				222	Joint w/ Moderate Offset	0.07	Grout 1	****
				222	Pipe Material Change	0.00	0	\$0.00
				227	Service Connection	0.00	0	\$0.00
				227	Pipe Material Change	0.00	0	\$0.00
				286	Upstream Manhole	0.00	0	\$0.00
(RV14)1032 - (RV14)T-CONNECTION								
1/31/2011 1200 WEST C ST								
12		28	28					
				0	Upstream Manhole	0.00	0	\$0.00
				0	Begin TV Observation	0.00	0	\$0.00
				28	Downstream Manhole	0.00	0	\$0.00
				28	End TV Observation	0.00	0	\$0.00

<i>Line Segment</i>						<i>-----Repair-----</i>			
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>	
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>	
(RV14)1033 - (RV14)1031									
1/27/2011	1300 WEST C STREET								
15		394	394						
				0	Upstream Manhole	0.00	0	\$0.00	
				0	Begin TV Observation	0.00	0	\$0.00	
				74	Pipe w/ Longitudinal Crack	0.10	5	\$4,000.00	27.778
				394	Downstream Manhole	0.00	0	\$0.00	
				394	End TV Observation	0.00	0	\$0.00	
(RV14)1035 - (RV14)1035A									
1/27/2011	W CL PLACE								
10		299	299						
				0	Upstream Manhole	0.00	0	\$0.00	
				0	Begin TV Observation	0.00	0	\$0.00	
				131	Pipe w/ Hole	0.50	5	\$3,500.00	4.861
				299	Downstream Manhole	0.00	0	\$0.00	
				299	End TV Observation	0.00	0	\$0.00	

<i>Line Segment</i>					<i>-----Repair-----</i>					
<i>Date</i>	<i>Street</i>	<i>Segment</i>	<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>			
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>		
(RV14)1035A - (RV14)1033										
1/27/2011	1500 WEST C STREET									
15		95	95							
				0	Upstream Manhole	0.00	0	\$0.00		
				0	Begin TV Observation	0.00	0	\$0.00		
				95	Downstream Manhole	0.00	0	\$0.00		
				95	End TV Observation	0.00	0	\$0.00		
(RV14)1042 - (RV14)1041										
1/27/2011	TULSA									
15	12	401	401							
				0	Upstream Manhole	0.00	0	\$0.00		
				0	Begin TV Observation	0.00	0	\$0.00		
				215	Joint w/ Infiltration	0.05	0	****		
				215	Pipe w/ Circular Crack	0.10	5	\$3,800.00	26.389	
				349	Joint w/ Infiltration	0.05	0	****		
				349	Pipe w/ Longitudinal Crack	0.10	5	\$3,800.00	26.389	
				397	Joint w/ Infiltration	0.05	0	****		
				401	Downstream Manhole	0.00	0	\$0.00		
				401	End TV Observation	0.00	0	\$0.00		
(RV14)1044 - (RV14)1044A										
1/27/2011	W C PLACE									
10		132	132							

<i>Line Segment</i>				<i>-----Repair-----</i>					
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>	
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>	
				0	Upstream Manhole	0.00	0	\$0.00	
				0	Begin TV Observation	0.00	0	\$0.00	
				30	Service Connection	0.00	0	\$0.00	
				38	Pipe w/ Circular Crack	0.10	5	\$4,000.00	27.778
				87	Service Connection	0.00	0	\$0.00	
				132	Downstream Manhole	0.00	0	\$0.00	
				132	End TV Observation	0.00	0	\$0.00	

(RV14)1044A - (RV14)1036

1/27/2011 W C PLACE

10 280 280

				0	Upstream Manhole	0.00	0	\$0.00	
				0	Begin TV Observation	0.00	0	\$0.00	
				36	Joint w/ Infiltration	0.05	0	****	
				36	Abandoned Connection	0.00	0	\$0.00	
				67	Abandoned Connection	0.00	0	\$0.00	
				145	Service Connection w/Defect	0.15	5	\$4,000.00	18.519
				248	Joint w/ Infiltration	0.05	0	****	
				248	Dyed Water Data	0.00	0	\$0.00	
				251	Joint w/ Infiltration	0.05	0	****	
				251	Dyed Water Data	0.00	0	\$0.00	
				273	Joint w/ Moderate Offset	0.07	1	****	
				280	Downstream Manhole	0.00	0	\$0.00	
				280	End TV Observation	0.00	0	\$0.00	

<i>Line Segment</i>						<i>-----Repair-----</i>			
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>	
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>	
(RV14)1047 - (RV14)1046									
1/27/2011	WEST C PLACE								
6	5	125	445						
				0	Upstream Manhole	0.00	0	\$0.00	
				0	Begin TV Observation	0.00	0	\$0.00	
				7	Joint w/ Moderate Offset	0.07	1	****	
				18	Abandoned Connection	0.00	0	\$0.00	
				19	Abandoned Connection	0.00	0	\$0.00	
				66	Abandoned Connection	0.00	0	\$0.00	
				66	Connection Infiltration	0.15	5	\$4,300.00	19.907
				70	Abandoned Connection	0.00	0	\$0.00	
				70	Abandoned Connection	0.00	0	\$0.00	
				91	Joint w/ Moderate Offset	0.07	1	****	
				92	Camera Blocked	0.00	0	\$0.00	
				92	End TV Observation	0.00	0	\$0.00	
				413	Camera Blocked	0.00	0	\$0.00	
				413	Joint w/ Severe Offset	0.10	5	\$4,300.00	29.861
				413	End TV Observation	0.00	0	\$0.00	
				445	Reverse Setup	0.00	0	\$0.00	
				445	Begin TV Observation	0.00	0	\$0.00	

<i>Line Segment</i>					<i>-----Repair-----</i>				
<i>Date</i>	<i>Street</i>	<i>Segment</i>			<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>		<i>\$/gpd</i>
(RV14)1051 - (RV14)1005									
1/31/2011	1100 WEST C ST								
6	4	282	282						
				0	Upstream Manhole	0.00	0	\$0.00	
				0	Begin TV Observation	0.00	0	\$0.00	
				0	Pipe w/ Hole	0.50	Repair	5	\$4,300.00 5.972
				14	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00 29.861
				43	Service Connection	0.00		0	\$0.00
				74	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00 29.861
				87	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00 19.907
				104	Pipe, Broken	0.50	Repair	5	\$4,300.00 5.972
				105	Pipe w/ Hole	0.50	Repair	5	\$4,300.00 5.972
				105	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00 19.907
				110	Joint w/ Light Roots	0.01	Grout	7	****
				124	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00 29.861
				135	Service Connection	0.00		0	\$0.00
				169	Joint w/ Light Roots	0.01	Grout	18	****
				172	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00 19.907
				180	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00 29.861
				199	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00 29.861
				213	Service Connection	0.00		0	\$0.00
				236	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00 19.907
				236	Connection Infiltration	0.15	Repair	5	\$4,300.00 19.907
				236	Dyed Water Data	0.00		0	\$0.00
				237	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00 29.861
				241	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00 29.861
				242	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00 19.907
				251	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00 29.861
				282	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00 29.861
				286	Downstream Manhole	0.00		0	\$0.00
				286	End TV Observation	0.00		0	\$0.00

<i>Line Segment</i>						<i>-----Repair-----</i>			
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>	
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>	
(RV14)1052 - (RV14)1024									
1/31/2011	110 WEST C ST								
10	5	301	301						
				0	Upstream Manhole	0.00	0	\$0.00	
				0	Begin TV Observation	0.00	0	\$0.00	
				11	Pipe w/ Longitudinal Crack	0.10	Repair	5 \$4,300.00 29.861	
				13	Joint w/ Light Roots	0.01	Grout	0 ****	
				34	Joint w/ Medium Roots	0.03	Grout	0 ****	
				57	Pipe w/ Longitudinal Crack	0.10	Repair	10 \$4,600.00 31.944	
				60	Service Connection w/ Break-In	0.15	Repair	5 \$4,300.00 19.907	
				86	Pipe, Broken	0.50	Repair	5 \$4,300.00 5.972	
				86	Service Connection w/ Break-In	0.15	Repair	5 \$4,300.00 19.907	
				86	Dyed Water Data	0.00		0 \$0.00	
				95	Joint w/ Infiltration	0.05	Grout	0 ****	
				95	Pipe w/ Longitudinal Crack	0.10	Repair	5 \$4,300.00 29.861	
				98	Joint w/ Infiltration	0.05	Grout	0 ****	
				98	Dyed Water Data	0.00		0 \$0.00	
				99	Abandoned Connection	0.00		0 \$0.00	
				106	Joint w/ Infiltration	0.05	Grout	0 ****	
				134	Joint w/ Infiltration	0.05	Grout	0 ****	
				141	Service Connection w/ Break-In	0.15	Repair	5 \$4,300.00 19.907	
				157	Pipe w/ Longitudinal Crack	0.10	Repair	5 \$4,300.00 29.861	
				180	Pipe Material Change	0.00		0 \$0.00	
				182	Pipe Material Change	0.00		0 \$0.00	
				205	Abandoned Connection	0.00		0 \$0.00	
				214	Pipe w/ Circular Crack	0.10	Repair	5 \$4,300.00 29.861	
				219	Joint w/ Light Roots	0.01	Grout	0 ****	
				237	Joint w/ Medium Roots	0.03	Grout	0 ****	

<i>Line Segment</i>					<i>-----Repair-----</i>					
<i>Date</i>	<i>Street</i>	<i>Segment</i>			<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>	
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>		
				241	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
				260	Joint w/ Light Roots	0.01	Grout	0	****	
				283	Joint w/ Medium Roots	0.03	Grout	0	****	
				284	Pipe w/ Hole	0.50	Repair	5	\$4,300.00	5.972
				290	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
				300	Downstream Manhole	0.00		0	\$0.00	
				300	End TV Observation	0.00		0	\$0.00	

(RV14)1058 - (RV14)1032

1/31/2011 1200 WEST B STREET

12 6 281 281

				0	Upstream Manhole	0.00		0	\$0.00	
				0	Begin TV Observation	0.00		0	\$0.00	
				15	Joint w/ Infiltration	0.05	Grout	0	****	
				15	Dyed Water Data	0.00		0	\$0.00	
				81	Service Connection	0.00		0	\$0.00	
				105	Abandoned Connection	0.00		0	\$0.00	
				150	Service Connection	0.00		0	\$0.00	
				209	Service Connection	0.00		0	\$0.00	
				244	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
				281	Downstream Manhole	0.00		0	\$0.00	
				281	End TV Observation	0.00		0	\$0.00	

<i>Line Segment</i>					<i>-----Repair-----</i>				
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>	
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(ft)</i>		<i>\$/gpd</i>	
(RV14)1060 - (RV14)1059									
1/31/2011	1400 WEST B ST								
6	6	300	300						
				0	Upstream Manhole	0	\$0.00		
				0	Begin TV Observation	0	\$0.00		
				86	Service Connection	0	\$0.00		
				100	Service Connection	0	\$0.00		
				112	Pipe, Broken	5	\$4,300.00	5.972	
				113	Service Connection w/ Break-In	5	\$4,300.00	19.907	
				130	Pipe Material Change	0	\$0.00		
				136	Pipe Material Change	0	\$0.00		
				141	Service Connection	0	\$0.00		
				153	Abandoned Connection	0	\$0.00		
				189	Service Connection	0	\$0.00		
				196	Service Connection	0	\$0.00		
				208	Service Connection w/ Break-In	5	\$4,300.00	19.907	
				249	Abandoned Connection	0	\$0.00		
				300	Downstream Manhole	0	\$0.00		
				300	End TV Observation	0	\$0.00		
(RV14)1061 - (RV14)1060									
1/31/2011	1400 WEST B ST								
6	5	30	299						
				0	Upstream Manhole	0	\$0.00		
				0	Begin TV Observation	0	\$0.00		
				15	Pipe w/ Hole	5	\$4,300.00	5.972	
				51	Abandoned Connection	0	\$0.00		
				68	Service Connection w/ Break-In	5	\$4,300.00	19.907	
				100	Abandoned Connection	0	\$0.00		

<i>Line Segment</i>				<i>-----Repair-----</i>					
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>	
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>(gpm)</i>		<i>(ft)</i>		<i>\$/gpd</i>	
			101	Abandoned Connection	0.00		0	\$0.00	
			113	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
			151	Abandoned Connection	0.00		0	\$0.00	
			152	Abandoned Connection	0.00		0	\$0.00	
			177	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
			177	Connection Infiltration	0.15	Repair	5	\$4,300.00	19.907
			177	Dyed Water Data	0.00		0	\$0.00	
			199	Abandoned Connection	0.00		0	\$0.00	
			200	Abandoned Connection	0.00		0	\$0.00	
			215	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
			301	Downstream Manhole	0.00		0	\$0.00	
			301	End TV Observation	0.00		0	\$0.00	

(RV14)1069 - (RV14)1070

3/1/2011 MAINE JONESBORO

10 8 406 409

			0	Upstream Manhole	0.00		0	\$0.00	
			0	Begin TV Observation	0.00		0	\$0.00	
			8	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
			11	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
			28	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
			41	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
			105	Pipe, Broken	0.50	Repair	5	\$4,300.00	5.972
			122	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
			153	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
			164	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
			178	Service Connection	0.00		0	\$0.00	
			179	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
			183	Service Connection	0.00		0	\$0.00	

<i>Line Segment</i>				<i>-----Repair-----</i>					
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>	
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>(gpm)</i>		<i>(ft)</i>		<i>\$/gpd</i>	
			192	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
			218	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
			238	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
			245	Service Connection	0.00		0	\$0.00	
			247	Abandoned Connection	0.00		0	\$0.00	
			293	Service Connection	0.00		0	\$0.00	
			296	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
			296	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
			384	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
			406	Downstream Manhole	0.00		0	\$0.00	
			406	End TV Observation	0.00		0	\$0.00	

(RV14)1074 - (RV14)1073
 3/1/2011 MAIN NEW ORLEANS
 6 231 610

			0	Downstream Manhole	0.00		0	\$0.00	
			0	Begin TV Observation	0.00		0	\$0.00	
			21	Service Connection w/ Break-In	0.15	Repair	5	\$4,000.00	18.519
			47	Pipe Material Change	0.00		0	\$0.00	
			51	Pipe Material Change	0.00		0	\$0.00	
			82	Service Connection	0.00		0	\$0.00	
			109	Pipe w/ Circular Crack	0.10	Repair	5	\$4,000.00	27.778
			113	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,000.00	27.778
			118	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,000.00	27.778
			166	Pipe w/ Circular Crack	0.10	Repair	5	\$4,000.00	27.778
			186	Pipe w/ Circular Crack	0.10	Repair	5	\$4,000.00	27.778
			231	Camera Blocked	0.00		0		
			231	Pipe w/ Circular Crack	0.10	Repair	5	\$4,000.00	27.778
			231	End TV Observation	0.00		0	\$0.00	

<i>Line Segment</i>					<i>-----Repair-----</i>				
<i>Date</i>	<i>Street</i>	<i>Segment</i>			<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>	

(RV14)1075 - (RV14)1074

3/1/2011 RENO MAIN

6 4 77 558

0	Upstream Manhole	0.00		0	\$0.00			
0	Begin TV Observation	0.00		0	\$0.00			
13	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861		
20	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861		
24	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861		
50	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861		
52	Service Connection	0.00		0	\$0.00			
53	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861		
76	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861		
76	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907		
77	Camera Blocked	0.00		0	\$0.00			
77	End TV Observation	0.00		0	\$0.00			
558	Camera Blocked	0.00		0	\$0.00			
558	Downstream Manhole	0.00		0	\$0.00			
558	End TV Observation	0.00		0	\$0.00			

(RV14)1080 - (RV14)1083

2/3/2011 2ND STREET

6 4

0	Upstream Manhole	0.00		0	\$0.00			
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<i>Line Segment</i>				<i>-----Repair-----</i>				
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>
0				0	Upstream Manhole	0.00	0	\$0.00
0				0	Upstream Manhole	0.00	0	\$0.00
0				0	Upstream Manhole	0.00	0	\$0.00
0				0	Camera Blocked	0.00	0	\$0.00
0				0	Camera Blocked	0.00	0	\$0.00
0				0	Reverse Setup	0.00	0	\$0.00
0				0	Reverse Setup	0.00	0	\$0.00
0				0	Downstream Manhole	0.00	0	\$0.00
0				0	Downstream Manhole	0.00	0	\$0.00
0				0	Begin TV Observation	0.00	0	\$0.00
0				0	Begin TV Observation	0.00	0	\$0.00
0				0	Begin TV Observation	0.00	0	\$0.00
0				0	Begin TV Observation	0.00	0	\$0.00
0				0	End TV Observation	0.00	0	\$0.00
0				0	End TV Observation	0.00	0	\$0.00
13				13	Pipe w/ Longitudinal Crack	0.10	Repair	5 \$4,300.00 29.861
13				13	Pipe w/ Longitudinal Crack	0.10	Repair	5 \$4,300.00 29.861
21				21	Joint, Cracked	0.50	Repair	5 \$4,300.00 5.972
21				21	Joint, Cracked	0.50	Repair	5 \$4,300.00 5.972
21				21	Pipe w/ Circular Crack	0.10	Repair	5 \$4,300.00 29.861
21				21	Pipe w/ Circular Crack	0.10	Repair	5 \$4,300.00 29.861
29				29	Pipe w/ Circular Crack	0.10	Repair	5 \$4,300.00 29.861
29				29	Pipe w/ Circular Crack	0.10	Repair	5 \$4,300.00 29.861
29				29	Pipe w/ Longitudinal Crack	0.10	Repair	6 \$4,360.00 30.278
29				29	Pipe w/ Longitudinal Crack	0.10	Repair	6 \$4,360.00 30.278
42				42	Pipe w/ Circular Crack	0.10	Repair	5 \$4,300.00 29.861
42				42	Pipe w/ Circular Crack	0.10	Repair	5 \$4,300.00 29.861
54				54	Service Connection w/ Break-In	0.15	Repair	5 \$4,300.00 19.907
54				54	Service Connection w/ Break-In	0.15	Repair	5 \$4,300.00 19.907
54				54	Connection Infiltration	0.15	Repair	5 \$4,300.00 19.907
54				54	Connection Infiltration	0.15	Repair	5 \$4,300.00 19.907
54				54	Dyed Water Data	0.00		0 \$0.00
54				54	Dyed Water Data	0.00		0 \$0.00

<i>Line Segment</i>				<i>-----Repair-----</i>					
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>	
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>(gpm)</i>		<i>(ft)</i>		<i>\$/gpd</i>	
			79	Abandoned Connection	0.00		0	\$0.00	
			79	Abandoned Connection	0.00		0	\$0.00	
			81	Abandoned Connection	0.00		0	\$0.00	
			81	Abandoned Connection	0.00		0	\$0.00	
			110	Abandoned Connection	0.00		0	\$0.00	
			110	Abandoned Connection	0.00		0	\$0.00	
			112	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
			112	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
			119	Pipe w/ Open Crack	0.30	Repair	5	\$4,300.00	9.954
			119	Pipe w/ Open Crack	0.30	Repair	5	\$4,300.00	9.954
			119	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
			119	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
			146	Joint, Cracked	0.50	Repair	5	\$4,300.00	5.972
			146	Joint, Cracked	0.50	Repair	5	\$4,300.00	5.972
			149	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
			149	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
			151	Abandoned Connection	0.00		0	\$0.00	
			151	Abandoned Connection	0.00		0	\$0.00	
			197	Abandoned Connection	0.00		0	\$0.00	
			197	Abandoned Connection	0.00		0	\$0.00	
			202	Pipe w/ Sag	0.00		10	\$0.00	
			202	Pipe w/ Sag	0.00		10	\$0.00	
			212	Joint, Cracked	0.50	Repair	5	\$4,300.00	5.972
			212	Joint, Cracked	0.50	Repair	5	\$4,300.00	5.972
			212	Pipe w/ Sag	0.00		7	\$0.00	
			212	Pipe w/ Sag	0.00		7	\$0.00	
			231	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
			231	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
			250	Joint w/ Light Roots	0.01	Grout	0	****	
			250	Joint w/ Light Roots	0.01	Grout	0	****	
			252	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
			252	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
			260	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907

<i>Line Segment</i>				<i>-----Repair-----</i>						
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>		
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>		
				260	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
				282	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
				282	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
				291	Camera Blocked	0.00		0	\$0.00	
				291	Camera Blocked	0.00		0	\$0.00	
				291	Pipe w/ Hole	0.50	Repair	5	\$4,300.00	5.972
				291	Pipe w/ Hole	0.50	Repair	5	\$4,300.00	5.972
				291	End TV Observation	0.00		0	\$0.00	
				291	End TV Observation	0.00		0	\$0.00	

(RV14)1081 - (RV14)1069

1/21/2011 JONESBORO

10 3 175 385

0	Upstream Manhole	0.00		0	\$0.00	
0	Begin TV Observation	0.00		0	\$0.00	
8	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
36	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
40	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
54	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
59	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
67	Pipe, Broken	0.50	Repair	5	\$4,300.00	5.972
161	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
171	Abandoned Connection	0.00		0	\$0.00	
175	Camera Blocked	0.00		0	\$0.00	
175	End TV Observation	0.00		0	\$0.00	

<i>Line Segment</i>						<i>-----Repair-----</i>			
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>	
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>	

(RV14)1084 - (RV14)2822

2/2/2011 100 BLOCK SOUTH LAREDO

18 10 393 393

0	Upstream Manhole	0.00		0	\$0.00	
0	Begin TV Observation	0.00		0	\$0.00	
0	Pipe w/ 26-50 Percent Flow	0.00		0	\$0.00	
94	Pipe Material Change	0.00		0	\$0.00	
144	Joint, Cracked	0.50	Repair	5	\$4,350.00	6.042
207	Pipe Material Change	0.00		0	\$0.00	
224	Pipe w/ Circular Crack	0.10	Repair	5	\$4,350.00	30.208
260	Joint w/ Light Roots	0.01	Grout	0	****	
264	Service Connection w/ Break-In	0.15	Repair	5	\$4,350.00	20.139
393	Downstream Manhole	0.00		0	\$0.00	
393	End TV Observation	0.00		0	\$0.00	

(RV14)1085 - (RV14)1084

2/2/2011 100 BLK S LOREDO

18 10 175 197

0	Upstream Manhole	0.00		0	\$0.00	
0	Begin TV Observation	0.00		0	\$0.00	
175	Downstream Manhole	0.00		0	\$0.00	
175	End TV Observation	0.00		0	\$0.00	

<i>Line Segment</i>					<i>-----Repair-----</i>				
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>	
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>(gpm)</i>		<i>(ft)</i>		<i>\$/gpd</i>	
(RV14)1086 - (RV14)1085									
2/2/2011	100 BLK S MUSKOGEE		59						
15	8	59	59						
0				0.00		0	\$0.00		
0				0.00		0	\$0.00		
4				0.05	Grout	0	****		
4				0.50	Repair	5	\$4,300.00	5.972	
4				0.10	Repair	5	\$4,300.00	29.861	
18				0.03	Grout	5	****		
59				0.00		0	\$0.00		
59				0.00		0	\$0.00		
(RV14)1088 - (RV14)1086									
2/2/2011	100 BLK S MUSKOGEE		343						
6		343	343						
0				0.00		0	\$0.00		
0				0.00		0	\$0.00		
5				0.50	Repair	5	\$4,000.00	5.556	
84				0.10	Repair	5	\$4,000.00	27.778	
120				0.00		0	\$0.00		
200				0.00		0	\$0.00		
218				0.15	Repair	5	\$4,000.00	18.519	
253				0.03	Grout	0	****		

<i>Line Segment</i>				<i>-----Repair-----</i>						
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>		
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>		
				253	Joint, Cracked	0.50	Repair	5	\$4,000.00	5.556
				253	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,000.00	27.778
				289	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,000.00	27.778
				318	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,000.00	27.778
				343	Downstream Manhole	0.00		0	\$0.00	
				343	End TV Observation	0.00		0	\$0.00	
(RV14)1091 - (RV14)1087										
1/21/2011 ESMT OFF OMAHA										
				8				455		455
				0	Upstream Manhole	0.00		0	\$0.00	
				0	Begin TV Observation	0.00		0	\$0.00	
				4	Service Connection w/ Break-In	0.15	Repair	5	\$3,500.00	16.204
				5	Pipe w/ Circular Crack	0.10	Repair	5	\$3,500.00	24.306
				46	Joint w/ Light Roots	0.01	Grout	0	****	
				48	Abandoned Connection	0.00		0	\$0.00	
				51	Joint w/ Medium Roots	0.03	Grout	0	****	
				53	Joint w/ Medium Roots	0.03	Grout	0	****	
				75	Pipe Material Change	0.00		0	\$0.00	
				79	Pipe Material Change	0.00		0	\$0.00	
				90	Joint w/ Medium Roots	0.03	Grout	0	****	
				98	Service Connection w/Defect	0.15	Repair	5	\$3,500.00	16.204
				100	Joint w/ Light Roots	0.01	Grout	59	****	
				167	Pipe Material Change	0.00		0	\$0.00	
				195	Pipe Material Change	0.00		0	\$0.00	
				210	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$3,500.00	24.306
				222	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$3,500.00	24.306
				257	Abandoned Connection	0.00		0	\$0.00	
				260	Abandoned Connection	0.00		0	\$0.00	

<i>Line Segment</i>				<i>-----Repair-----</i>					
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>	
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>	
				349	Abandoned Connection	0.00	0	\$0.00	
				352	Abandoned Connection	0.00	0	\$0.00	
				401	Abandoned Connection	0.00	0	\$0.00	
				455	Downstream Manhole	0.00	0	\$0.00	
				455	End TV Observation	0.00	0	\$0.00	
(RV14)1092 - (RV14)2848									
3/15/2011 OMAHA									
	15	8	238	238					
				0	Upstream Manhole	0.00	0	\$0.00	
				0	Begin TV Observation	0.00	0	\$0.00	
				238	Downstream Manhole	0.00	0	\$0.00	
				238	End TV Observation	0.00	0	\$0.00	
(RV14)1093 - (RV14)2011									
1/21/2011 OMAHA									
	6		279	300					
				0	Upstream Manhole	0.00	0	\$0.00	
				0	Begin TV Observation	0.00	0	\$0.00	
				2	Pipe w/ Circular Crack	0.10	Repair	5 \$4,000.00 27.778	
				34	Service Connection w/ Break-In	0.15	Repair	5 \$4,000.00 18.519	
				61	Pipe, Broken	0.50	Repair	5 \$4,000.00 5.556	
				159	Service Connection w/ Break-In	0.15	Repair	5 \$4,000.00 18.519	
				279	Camera Blocked	0.00	0	\$0.00	

<i>Line Segment</i>					<i>-----Repair-----</i>					
<i>Date</i>	<i>Street</i>	<i>Segment</i>			<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>	
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>		<i>\$/gpd</i>	
				279	Joint w/ Moderate Offset	0.07	Grout	1	****	
				279	End TV Observation	0.00		0	\$0.00	
(RV14)1094 - (RV14)1091										
1/21/2011 PHOENIX										
	8	8	309	473						
				0	Upstream Manhole	0.00		0	\$0.00	
				0	Begin TV Observation	0.00		0	\$0.00	
				4	Pipe w/ Circular Crack	0.10	Repair	5	\$3,750.00	26.042
				5	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$3,750.00	26.042
				6	Joint w/ Light Roots	0.01	Grout	20	****	
				46	Joint w/ Light Roots	0.01	Grout	0	****	
				70	Joint w/ Light Roots	0.01	Grout	0	****	
				89	Joint w/ Light Roots	0.01	Grout	0	****	
				134	Pipe w/ Grease	0.00		35	\$0.00	
				156	Joint w/ Light Roots	0.01	Grout	0	****	
				172	Joint w/ Medium Roots	0.03	Grout	0	****	
				183	Pipe w/ Circular Crack	0.10	Repair	5	\$3,750.00	26.042
				246	Joint w/ Infiltration	0.05	Grout	0	****	
				256	Pipe Material Change	0.00		0	\$0.00	
				271	Pipe Material Change	0.00		0	\$0.00	
				309	Camera Blocked	0.00		0	\$0.00	
				309	Pipe, Broken	0.50	Repair	5	\$3,750.00	5.208
				309	End TV Observation	0.00		0	\$0.00	
				309	Pipe Material Change	0.00		0	\$0.00	

<i>Line Segment</i>						<i>-----Repair-----</i>			
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>	
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>	
(RV14)1095 - (RV14)2011									
1/21/2011 PHOENIX									
15	13	361	361						
				0	Upstream Manhole	0.00	0	\$0.00	
				0	Begin TV Observation	0.00	0	\$0.00	
				6	Abandoned Connection	0.00	0	\$0.00	
				11	Abandoned Connection	0.00	0	\$0.00	
				312	Service Connection w/ Break-In	0.15	5	\$3,800.00	17.593
				361	Downstream Manhole	0.00	0	\$0.00	
				361	End TV Observation	0.00	0	\$0.00	
(RV14)1103 - (RV14)2313									
2/23/2011 RENO 2ND									
12	10	138	138						
				0	Upstream Manhole	0.00	0	\$0.00	
				0	Begin TV Observation	0.00	0	\$0.00	
				138	Downstream Manhole	0.00	0	\$0.00	
				138	End TV Observation	0.00	0	\$0.00	

<i>Line Segment</i>		<i>-----Repair-----</i>							
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>	
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>	
(RV14)1104 - (RV14)1103									
2/23/2011 VANCOVER									
12	11	294	305						
				0	Upstream Manhole	0.00	0	\$0.00	
				0	Begin TV Observation	0.00	0	\$0.00	
				294	Downstream Manhole	0.00	0	\$0.00	
				294	End TV Observation	0.00	0	\$0.00	
(RV14)1105 - (RV14)1104									
2/23/2011 VANCOVER									
12	14	301	301						
				0	Upstream Manhole	0.00	0	\$0.00	
				0	Begin TV Observation	0.00	0	\$0.00	
				271	Pipe w/ Circular Crack	0.10	5	\$3,800.00	26.389
				301	Downstream Manhole	0.00	0	\$0.00	
				301	End TV Observation	0.00	0	\$0.00	

<i>Line Segment</i>					<i>-----Repair-----</i>					
<i>Date</i>	<i>Street</i>	<i>Segment</i>	<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>			
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>		
(RV14)1106 - (RV14)1105										
2/23/2011 VANCOVER										
12	17	301		318						
			0	Upstream Manhole		0.00	0	\$0.00		
			0	Begin TV Observation		0.00	0	\$0.00		
			301	Downstream Manhole		0.00	0	\$0.00		
			301	End TV Observation		0.00	0	\$0.00		
(RV14)1108 - (RV14)2814										
3/15/2011 PHEONIX										
6	4	82		144						
			0	Upstream Manhole		0.00	0	\$0.00		
			0	Begin TV Observation		0.00	0	\$0.00		
			10	Pipe Material Change		0.00	0	\$0.00		
			18	Pipe Material Change		0.00	0	\$0.00		
			27	Pipe Material Change		0.00	0	\$0.00		
			31	Pipe Material Change		0.00	0	\$0.00		
			72	Joint w/ Light Roots		0.01	0	Grout	****	
			77	Service Connection w/ Break-In		0.15	5	Repair	\$4,300.00	19.907
			78	Camera Blocked		0.00	0		\$0.00	
			78	End TV Observation		0.00	0		\$0.00	
			140	End TV Observation		0.00	0		\$0.00	
			140	Pipe w/ 76-100 Percent Flow		0.00	0		\$0.00	
			143	Service Connection		0.00	0		\$0.00	
			144	Downstream Manhole		0.00	0		\$0.00	
			144	Begin TV Observation		0.00	0		\$0.00	

<i>Line Segment</i>					<i>-----Repair-----</i>				
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>	
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>	
(RV14)1110 - (RV14)1109									
2/23/2011	2ND RENO								
6	3	124	293						
0					Upstream Manhole	0.00	0	\$0.00	
0					Begin TV Observation	0.00	0	\$0.00	
5					Joint w/ Light Roots	0.01	0	****	
5					Pipe w/ Circular Crack	0.10	5	\$4,300.00 29.861	
9					Pipe w/ Longitudinal Crack	0.10	5	\$4,300.00 29.861	
51					Service Connection w/ Break-In	0.15	5	\$4,300.00 19.907	
90					Pipe w/ Longitudinal Crack	0.10	5	\$4,300.00 29.861	
94					Pipe w/ Circular Crack	0.10	5	\$4,300.00 29.861	
102					Pipe w/ Circular Crack	0.10	5	\$4,300.00 29.861	
124					Camera Blocked	0.00	0	\$0.00	
124					Pipe, Broken	0.50	5	\$4,300.00 5.972	
124					End TV Observation	0.00	0	\$0.00	
293					Camera Blocked	0.00	0	\$0.00	
293					Joint w/ Moderate Offset	0.07	1	****	
293					Downstream Manhole	0.00	0	\$0.00	
293					Begin TV Observation	0.00	0	\$0.00	
293					End TV Observation	0.00	0	\$0.00	

<i>Line Segment</i>		<i>-----Repair-----</i>						
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>
(RV14)1111 - (RV14)1110								
2/23/2011	2ND RENO							
6		55	265					
0				0	Upstream Manhole	0.00	0	\$0.00
0				0	Begin TV Observation	0.00	0	\$0.00
5				5	Joint w/ Light Roots	0.01	0	****
5				5	Joint w/ Moderate Offset	0.07	1	****
8				8	Joint w/ Medium Roots	0.03	0	****
20				20	Joint w/ Light Roots	0.01	0	****
41				41	Joint w/ Light Roots	0.01	0	****
46				46	Joint w/ Light Roots	0.01	0	****
55				55	Camera Blocked	0.00	0	\$0.00
55				55	Joint w/ Heavy Roots	0.05	0	****
55				55	End TV Observation	0.00	0	\$0.00
(RV14)1112 - (RV14)1103								
3/1/2011	BACKYARD OF LOREDO							
8	4	52	52					
0				0	Upstream Manhole	0.00	0	\$0.00
0				0	Begin TV Observation	0.00	0	\$0.00
52				52	Downstream Manhole	0.00	0	\$0.00
52				52	End TV Observation	0.00	0	\$0.00

<i>Line Segment</i>					<i>-----Repair-----</i>				
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>	
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>(gpm)</i>		<i>(ft)</i>		<i>\$/gpd</i>	
(RV14)1146 - (RV14)1080									
2/3/2011 HOUSTON PL									
6	2	137	287						
0				0.00		0	\$0.00		
0				0.00		0	\$0.00		
61				0.01	Grout	0	****		
61				0.00		0	\$0.00		
85				0.00		0	\$0.00		
88				0.03	Grout	0	****		
94				0.00		0	\$0.00		
116				0.00		0	\$0.00		
128				0.00		0	\$0.00		
128				0.00		0	\$0.00		
278				0.00		0	\$0.00		
278				0.10	Repair	5	\$4,300.00	29.861	
278				0.00		0	\$0.00		
279				0.10	Repair	5	\$4,300.00	29.861	
287				0.00		0	\$0.00		
287				0.00		0	\$0.00		
(RV14)1153 - (RV14)1148									
2/3/2011 GLENWOOD AVE									
6	4	23	250						
0				0.00		0	\$0.00		
0				0.00		0	\$0.00		
11				0.15	Repair	5	\$4,300.00	19.907	
22				0.00		0	\$0.00		
23				0.00		0	\$0.00		
23				0.00		0	\$0.00		

<i>Line Segment</i>				<i>-----Repair-----</i>					
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>	
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>	
				250	Upstream Manhole	0.00	0	\$0.00	
				250	Camera Blocked	0.00	0	\$0.00	
				250	Downstream Manhole	0.00	0	\$0.00	
				250	Pipe, Broken	0.50	5	\$4,300.00	5.972
				250	End TV Observation	0.00	0	\$0.00	
(RV14)1162 - (RV14)1162B									
2/17/2011	4TH ST								
8		248	281						
				0	Upstream Manhole	0.00	0	\$0.00	
				0	Begin TV Observation	0.00	0	\$0.00	
				4	Joint w/ Light Roots	0.01	101	****	
				11	Pipe w/ Circular Crack	0.10	5	\$3,500.00	24.306
				16	Service Connection w/ Break-In	0.15	5	\$3,500.00	16.204
				31	Pipe w/ Circular Crack	0.10	5	\$3,500.00	24.306
				38	Service Connection w/ Break-In	0.15	5	\$3,500.00	16.204
				54	Pipe w/ Longitudinal Crack	0.10	5	\$3,500.00	24.306
				80	Pipe w/ Circular Crack	0.10	5	\$3,500.00	24.306
				92	Pipe w/ Circular Crack	0.10	5	\$3,500.00	24.306
				105	Service Connection w/ Break-In	0.15	5	\$3,500.00	16.204
				105	Roots	0.01	5	\$3,500.00	243.056
				123	Pipe w/ Circular Crack	0.10	5	\$3,500.00	24.306
				128	Pipe w/ Circular Crack	0.10	5	\$3,500.00	24.306
				131	Pipe w/ Circular Crack	0.10	5	\$3,500.00	24.306
				144	Pipe w/ Circular Crack	0.10	5	\$3,500.00	24.306
				169	Pipe w/ Circular Crack	0.10	5	\$3,500.00	24.306
				174	Pipe w/ Circular Crack	0.10	5	\$3,500.00	24.306
				236	Pipe w/ Circular Crack	0.10	5	\$3,500.00	24.306
				248	Downstream Manhole	0.00	0	\$0.00	

<i>Line Segment</i>				<i>-----Repair-----</i>					
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>	
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>	
				248	End TV Observation	0.00	0	\$0.00	
(RV14)1162B - (RV14)1158									
3/15/2011 4TH									
8	5	195	195						
				0	Upstream Manhole	0.00	0	\$0.00	
				0	Begin TV Observation	0.00	0	\$0.00	
				27	Service Connection	0.00	0	\$0.00	
				147	Abandoned Connection	0.00	0	\$0.00	
				149	Pipe Material Change	0.00	0	\$0.00	
				153	Pipe w/ Circular Crack	0.10	Repair	5 \$3,750.00 26.042	
				158	Pipe w/ Circular Crack	0.10	Repair	5 \$3,750.00 26.042	
				164	Joint w/ Light Roots	0.01	Grout	20 ****	
				195	Downstream Manhole	0.00	0	\$0.00	
				195	End TV Observation	0.00	0	\$0.00	
(RV14)1213A - (RV14)1162									
2/17/2011 5TH									
8		233	252						
				0	Joint, Cracked	0.50	Repair	5 \$3,500.00 4.861	
				0	Begin TV Observation	0.00	0	\$0.00	
				25	Joint w/ Moderate Offset	0.07	Grout	1 ****	
				25	Pipe Material Change	0.00	0	\$0.00	
				64	Pipe w/ Circular Crack	0.10	Repair	5 \$3,500.00 24.306	

<i>Line Segment</i>					<i>-----Repair-----</i>					
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>		
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>		
				93	Service Connection w/ Break-In	0.15	Repair	5	\$3,500.00	16.204
				93	Roots	0.01	Repair	5	\$3,500.00	243.056
				94	Joint w/ Medium Roots	0.03	Grout	0	****	
				94	Pipe w/ Circular Crack	0.10	Repair	5	\$3,500.00	24.306
				98	Joint w/ Medium Roots	0.03	Grout	0	****	
				132	Service Connection w/ Break-In	0.15	Repair	5	\$3,500.00	16.204
				133	Service Connection	0.00		0	\$0.00	
				182	Joint w/ Moderate Offset	0.07	Grout	1	****	
				189	Service Connection w/ Break-In	0.15	Repair	5	\$3,500.00	16.204
				227	Pipe w/ Circular Crack	0.10	Repair	5	\$3,500.00	24.306
				233	Downstream Manhole	0.00		0	\$0.00	
				233	End TV Observation	0.00		0	\$0.00	
				233	Service Connection w/ Break-In	0.15	Repair	5	\$3,500.00	16.204

(RV14)1308A - (RV14)1308

2/15/2011 3RD CT

6 6 363 362

				0	Upstream Manhole	0.00		0	\$0.00	
				0	Begin TV Observation	0.00		0	\$0.00	
				33	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
				65	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
				183	Camera Blocked	0.00		0	\$0.00	
				183	Joint w/ Gasket Exposed	0.10	Repair	5	\$4,300.00	29.861
				185	End TV Observation	0.00		0	\$0.00	
				203	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
				227	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
				227	Connection Infiltration	0.15	Repair	5	\$4,300.00	19.907
				227	Dyed Water Data	0.00		0	\$0.00	
				242	Joint w/ Infiltration	0.05	Grout	0	****	

<i>Line Segment</i>		<i>-----Repair-----</i>								
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>		
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>		
				281	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
				291	Joint w/ Infiltration	0.05	Grout	0	****	
				291	Dyed Water Data	0.00		0	\$0.00	
				363	Reverse Setup	0.00		0	\$0.00	
				363	Begin TV Observation	0.00		0	\$0.00	
(RV14)1516 - (RV14)1220										
2/15/2011	6TH STREET									
6	2	400	400							
				0	Upstream Manhole	0.00		0	\$0.00	
				0	Begin TV Observation	0.00		0	\$0.00	
				2	Pipe, Broken	0.50	Repair	5	\$4,300.00	5.972
				7	Service Connection	0.00		0	\$0.00	
				8	Service Connection	0.00		0	\$0.00	
				31	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
				51	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
				77	Joint w/ Light Roots	0.01	Grout	70	****	
				99	Service Connection w/Defect	0.15	Repair	5	\$4,300.00	19.907
				101	Service Connection	0.00		0	\$0.00	
				106	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
				115	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
				135	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
				152	Pipe Material Change	0.00		0	\$0.00	
				155	Pipe Material Change	0.00		0	\$0.00	
				167	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
				168	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
				181	Joint w/ Light Roots	0.01	Grout	0	****	
				181	Pipe Material Change	0.00		0	\$0.00	
				185	Pipe Material Change	0.00		0	\$0.00	

<i>Line Segment</i>				<i>-----Repair-----</i>					
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>	
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>(gpm)</i>		<i>(ft)</i>		<i>\$/gpd</i>	
			188	Abandoned Connection	0.00		0	\$0.00	
			195	Joint w/ Light Roots	0.01	Grout	90	****	
			218	Service Connection w/Defect	0.15	Repair	5	\$4,300.00	19.907
			221	Pipe, Broken	0.50	Repair	5	\$4,300.00	5.972
			221	Service Connection w/Defect	0.15	Repair	5	\$4,300.00	19.907
			244	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
			246	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
			256	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
			260	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
			264	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
			274	Service Connection	0.00		0	\$0.00	
			277	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
			278	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
			289	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
			292	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
			323	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
			325	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
			327	Pipe w/ Hole	0.50	Repair	5	\$4,300.00	5.972
			327	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
			328	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
			338	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
			340	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
			350	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
			369	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
			385	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
			396	Pipe, Broken	0.50	Repair	5	\$4,300.00	5.972
			396	Service Connection	0.00		0	\$0.00	
			400	Downstream Manhole	0.00		0	\$0.00	
			400	End TV Observation	0.00		0	\$0.00	

<i>Line Segment</i>		<i>-----Repair-----</i>						
<i>Date</i>	<i>Street</i>	<i>Segment</i>	<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>	
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>

(RV14)1532 - (EV14)1531

2/17/2011 8TH

6 2 0 241

(RV14)1831 - (RV14)1069

3/1/2011 MAIN INDEPENDENCE

6 4 307 308

0	Upstream Manhole	0.00		0	\$0.00	
0	Begin TV Observation	0.00		0	\$0.00	
5	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
19	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
94	Service Connection w/Defect	0.15	Repair	5	\$4,300.00	19.907
96	Service Connection	0.00		0	\$0.00	
112	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
116	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
168	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
178	Service Connection	0.00		0	\$0.00	
185	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
197	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
208	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
209	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
219	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861

<i>Line Segment</i>					<i>-----Repair-----</i>					
<i>Date</i>	<i>Street</i>	<i>Segment</i>			<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>	
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>		<i>\$/gpd</i>	
				226	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
				231	Service Connection	0.00		0	\$0.00	
				234	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
				306	Joint w/ Moderate Offset	0.07	Grout	1	****	
				307	End TV Observation	0.00		0	\$0.00	
				307	Service Connection	0.00		0	\$0.00	

(RV14)2176 - (RV14)2851

1/21/2011 2ND
 6 6 123 138

0	Upstream Manhole	0.00		0	\$0.00
0	Begin TV Observation	0.00		0	\$0.00
10	Service Connection	0.00		0	\$0.00
123	Downstream Manhole	0.00		0	\$0.00
123	End TV Observation	0.00		0	\$0.00

(RV14)2308 - (RV14)2309

2/23/2011 ESMT RENO
 12 12 119 120

0	Upstream Manhole	0.00		0	\$0.00
0	Begin TV Observation	0.00		0	\$0.00
44	Service Connection	0.00		0	\$0.00
80	Service Connection	0.00		0	\$0.00
119	Downstream Manhole	0.00		0	\$0.00

<i>Line Segment</i>				<i>-----Repair-----</i>				
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>
				119	End TV Observation	0.00	0	\$0.00
 (RV14)2309 - (RV14)2310								
3/15/2011 RENO								
12	13	79	79					
				0	Upstream Manhole	0.00	0	\$0.00
				0	Begin TV Observation	0.00	0	\$0.00
				79	Downstream Manhole	0.00	0	\$0.00
				79	End TV Observation	0.00	0	\$0.00
 (RV14)2310 - (RV14)1099								
3/15/2011 RENO								
12		303	303					
				0	Upstream Manhole	0.00	0	\$0.00
				0	Begin TV Observation	0.00	0	\$0.00
				4	Joint w/ Infiltration	0.05	Grout	0 ****
				115	Joint w/ Infiltration	0.05	Grout	0 ****
				119	Service Connection w/ Break-In	0.15	Repair	5 \$4,000.00 18.519
				303	Downstream Manhole	0.00	0	\$0.00
				303	End TV Observation	0.00	0	\$0.00

<i>Line Segment</i>					<i>-----Repair-----</i>				
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>	
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>	
(RV14)2311 - (RV14)2311A									
2/23/2011 2ND COBBLESTONE									
8		137	137						
				0	Upstream Manhole	0.00	0	\$0.00	
				0	Begin TV Observation	0.00	0	\$0.00	
				18	Service Connection	0.00	0	\$0.00	
				32	Service Connection	0.00	0	\$0.00	
				59	Service Connection	0.00	0	\$0.00	
				72	Service Connection	0.00	0	\$0.00	
				98	Service Connection	0.00	0	\$0.00	
				100	Pipe, Flattened Flex	0.00	5	\$3,500.00	999.999
				112	Service Connection	0.00	0	\$0.00	
(RV14)2311A - (RV14)2308									
2/23/2011 2ND COBBLESTONE ESEMT									
8		110	110						
				0	Upstream Manhole	0.00	0	\$0.00	
				0	Begin TV Observation	0.00	0	\$0.00	
				12	Pipe w/ Longitudinal Crack	0.10	5	\$3,500.00	24.306
				77	Service Connection	0.00	0	\$0.00	
				102	Pipe Material Change	0.00	0	\$0.00	
				107	Service Connection	0.00	0	\$0.00	
				110	Downstream Manhole	0.00	0	\$0.00	

<i>Line Segment</i>		<i>-----Repair-----</i>						
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>
				110	End TV Observation	0.00	0	\$0.00
(RV14)2313 - (RV14)2308								
2/23/2011 RENO 2ND								
12		109	213					
				0	Upstream Manhole	0.00	0	\$0.00
				0	Begin TV Observation	0.00	0	\$0.00
				49	Service Connection	0.00	0	\$0.00
				109	Downstream Manhole	0.00	0	\$0.00
				109	End TV Observation	0.00	0	\$0.00
(RV14)2822 - (RV14)1030								
2/2/2011 100 BLK S LAREDO								
18	8	402	402					
				0	Upstream Manhole	0.00	0	\$0.00
				0	Begin TV Observation	0.00	0	\$0.00
				263	Joint, Cracked	0.50	5	\$4,300.00 5.972
				301	Service Connection w/ Break-In	0.15	5	\$4,300.00 19.907
				353	Joint, Cracked	0.50	5	\$4,300.00 5.972
				354	Pipe w/ Circular Crack	0.10	5	\$4,300.00 29.861
				402	Downstream Manhole	0.00	0	\$0.00
				402	End TV Observation	0.00	0	\$0.00

<i>Line Segment</i>					<i>-----Repair-----</i>					
<i>Date</i>	<i>Street</i>	<i>Segment</i>	<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>			
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>		
(RV14)2825 - (RV14)1085										
2/2/2011 100 BLK S LAREDO										
12		303		303						
			0	0	Upstream Manhole	0.00	0	\$0.00		
			0	0	Begin TV Observation	0.00	0	\$0.00		
			68	68	Pipe w/ Circular Crack	0.10	Repair	5	\$4,000.00	27.778
			133	133	Joint w/ Gasket Exposed	0.10	Repair	5	\$4,000.00	27.778
			164	164	Joint, Seperated	0.70	Repair	5	\$4,000.00	3.968
			242	242	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,000.00	27.778
			251	251	Joint w/ Gasket Exposed	0.10	Repair	5	\$4,000.00	27.778
			272	272	Pipe w/ Circular Crack	0.10	Repair	5	\$4,000.00	27.778
			287	287	Joint w/ Gasket Exposed	0.10	Repair	5	\$4,000.00	27.778
			303	303	Downstream Manhole	0.00		0	\$0.00	
			303	303	End TV Observation	0.00		0	\$0.00	
(RV14)2833 - (RV14)1228										
2/15/2011 8TH ST										
6	5	352		352						
			0	0	Upstream Manhole	0.00		0	\$0.00	
			0	0	Begin TV Observation	0.00		0	\$0.00	
			2	2	Pipe Material Change	0.00		0	\$0.00	
			5	5	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
			6	6	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907

<i>Line Segment</i>				<i>-----Repair-----</i>						
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>		
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>		
12				12	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
14				14	Joint w/ Infiltration	0.05	Grout	0	****	
14				14	Dyed Water Data	0.00		0	\$0.00	
16				16	Joint w/ Infiltration	0.05	Grout	0	****	
16				16	Dyed Water Data	0.00		0	\$0.00	
18				18	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
26				26	Pipe Material Change	0.00		0	\$0.00	
33				33	Pipe Material Change	0.00		0	\$0.00	
53				53	Pipe w/ Longitudinal Crack	0.10	Repair	10	\$4,600.00	31.944
65				65	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
67				67	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
68				68	Abandoned Connection	0.00		0	\$0.00	
69				69	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
71				71	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
77				77	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
81				81	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
84				84	Service Connection w/Defect	0.15	Repair	5	\$4,300.00	19.907
102				102	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
110				110	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
114				114	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
118				118	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
130				130	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
134				134	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
167				167	Joint w/ Infiltration	0.05	Grout	0	****	
167				167	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
181				181	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
184				184	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
185				185	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
191				191	Pipe w/ Longitudinal Crack	0.10	Repair	10	\$4,600.00	31.944
216				216	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
224				224	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
226				226	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
236				236	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861

<i>Line Segment</i>				<i>-----Repair-----</i>					
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>	
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>(gpm)</i>		<i>(ft)</i>		<i>\$/gpd</i>	
			246	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
			254	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
			272	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
			276	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
			276	Roots	0.01	Repair	5	\$4,300.00	298.611
			278	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
			306	End TV Observation	0.00		0	\$0.00	
			329	Pipe, Broken	0.50	Repair	5	\$4,300.00	5.972
			352	Downstream Manhole	0.00		0	\$0.00	
			352	Begin TV Observation	0.00		0	\$0.00	

(RV14)2846 - (RV14)1098

2/3/2011 1700 BLK W 2ND ST

6 5 425 441

0	Upstream Manhole	0.00		0	\$0.00	
0	Begin TV Observation	0.00		0	\$0.00	
3	Joint w/ Light Roots	0.01	Grout	0	****	
39	Abandoned Connection	0.00		0	\$0.00	
48	Service Connection	0.00		0	\$0.00	
48	Roots	0.01	Repair	5	\$4,300.00	298.611
54	Joint w/ Light Roots	0.01	Grout	0	****	
65	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
75	Joint w/ Light Roots	0.01	Grout	0	****	
80	Joint w/ Light Roots	0.01	Grout	0	****	
85	Joint w/ Light Roots	0.01	Grout	0	****	
87	Abandoned Connection	0.00		0	\$0.00	
88	Abandoned Connection	0.00		0	\$0.00	
89	Joint w/ Medium Roots	0.03	Grout	0	****	
95	Joint w/ Light Roots	0.01	Grout	40	****	

<i>Line Segment</i>					<i>-----Repair-----</i>					
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>		
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>		
				136	Abandoned Connection	0.00	0	\$0.00		
				149	Pipe Material Change	0.00	0	\$0.00		
				150	Service Connection	0.00	0	\$0.00		
				152	Service Connection	0.00	0	\$0.00		
				186	Abandoned Connection	0.00	0	\$0.00		
				235	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
				245	Camera Blocked	0.00		0	\$0.00	
				245	Pipe, Collapsed	0.10	Repair	5	\$4,300.00	29.861
				245	End TV Observation	0.00		0	\$0.00	
				262	Camera Blocked	0.00		0	\$0.00	
				262	Joint w/ Severe Offset	0.10	Repair	5	\$4,300.00	29.861
				262	End TV Observation	0.00		0	\$0.00	
				277	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
				277	Connection Infiltration	0.15	Repair	5	\$4,300.00	19.907
				277	Dyed Water Data	0.00		0	\$0.00	
				314	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
				346	Joint w/ Light Roots	0.01	Grout	0	****	
				351	Service Connection w/Defect	0.15	Repair	5	\$4,300.00	19.907
				355	Abandoned Connection	0.00		0	\$0.00	
				361	Joint w/ Light Roots	0.01	Grout	0	****	
				381	Joint w/ Light Roots	0.01	Grout	0	****	
				383	Joint w/ Light Roots	0.01	Grout	0	****	
				389	Service Connection w/Defect	0.15	Repair	5	\$4,300.00	19.907
				432	Abandoned Connection	0.00		0	\$0.00	
				436	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
				437	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
				441	Downstream Manhole	0.00		0	\$0.00	
				441	Begin TV Observation	0.00		0	\$0.00	

<i>Line Segment</i>		<i>-----Repair-----</i>						
<i>Date</i>	<i>Street</i>	<i>Segment</i>	<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>	
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>
(RV14)2851 - (RV14)2848								
1/21/2011	2ND							
6		0		267				
(RV14)EOL - (RV14)1044								
1/27/2011	W CL PLACE							
6		17		177				
					0 Begin TV Observation	0.00	0	\$0.00
					16 Camera Blocked	0.00	0	\$0.00
					16 End TV Observation	0.00	0	\$0.00
					16 Left	0.00	0	\$0.00
(RV14)EOL - (RV14)1155								
2/15/2011	QUANAH							
6		155		240				
					0 Begin TV Observation	0.00	0	\$0.00
					16 Pipe w/ Longitudinal Crack	0.10	5	\$4,000.00 27.778
					17 Joint w/ Medium Roots	0.03	0	****
					21 Joint w/ Infiltration	0.05	0	****
					21 Dyed Water Data	0.00	0	\$0.00
					22 Joint w/ Infiltration	0.05	0	****
					22 Dyed Water Data	0.00	0	\$0.00
					28 Joint w/ Infiltration	0.05	0	****

<i>Line Segment</i>				<i>-----Repair-----</i>						
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>		
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>		
				28	Dyed Water Data	0.00	0	\$0.00		
				60	Service Connection w/ Break-In	0.15	Repair	5	\$4,000.00	18.519
				70	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,000.00	27.778
				104	Abandoned Connection	0.00		0	\$0.00	
				108	Service Connection w/ Break-In	0.15	Repair	5	\$4,000.00	18.519
				116	Pipe w/ Hole	0.50	Repair	5	\$4,000.00	5.556
				120	Pipe w/ Hole	0.50	Repair	5	\$4,000.00	5.556
				132	Pipe w/ Circular Crack	0.10	Repair	5	\$4,000.00	27.778
				154	Joint w/ Moderate Offset	0.07	Grout	1	****	
				155	Camera Blocked	0.00		0	\$0.00	
				155	End TV Observation	0.00		0	\$0.00	

(RV14)EOL - (RV14)1300
2/15/2011 QUANAH

6 61 196

0	Begin TV Observation	0.00		0	\$0.00	
25	Joint w/ Infiltration	0.05	Grout	0	****	
25	Dyed Water Data	0.00		0	\$0.00	
34	Service Connection	0.00		0	\$0.00	
34	Roots	0.01	Repair	5	\$4,000.00	277.778
55	Joint w/ Light Roots	0.01	Grout	0	****	
61	End TV Observation	0.00		0	\$0.00	
61	Service Connection w/Defect	0.15	Repair	5	\$4,000.00	18.519

<i>Line Segment</i>						<i>-----Repair-----</i>				
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>		
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>		
(RV14)T-CONN - (RV14)1030										
1/27/2011	1300 WEST C STREET									
15		226	226							
				0	Begin TV Observation	0.00	0	\$0.00		
				0	Dyed Water Data	0.00	0	\$0.00		
				74	Pipe w/ Circular Crack	0.10	Repair	5	\$4,000.00	27.778
				122	Pipe w/ Circular Crack	0.10	Repair	5	\$4,000.00	27.778
				163	Service Connection w/ Break-In	0.15	Repair	5	\$4,000.00	18.519
				165	Pipe Material Change	0.00		0	\$0.00	
				226	Downstream Manhole	0.00		0	\$0.00	
				226	End TV Observation	0.00		0	\$0.00	
(RV23)1028 - (RV23)2058										
2/16/2011	C ST									
6	5	295	295							
				0	Upstream Manhole	0.00		0	\$0.00	
				0	Begin TV Observation	0.00		0	\$0.00	
				23	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
				37	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
				57	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
				57	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
				65	Service Connection	0.00		0	\$0.00	
				89	Pipe, Broken	0.50	Repair	5	\$4,300.00	5.972
				96	Pipe, Broken	0.50	Repair	5	\$4,300.00	5.972
				101	Pipe, Broken	0.50	Repair	5	\$4,300.00	5.972
				173	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
				197	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
				201	Service Connection	0.00		0	\$0.00	
				218	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907

<i>Line Segment</i>					<i>-----Repair-----</i>				
<i>Date</i>	<i>Street</i>	<i>Segment</i>			<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>		<i>\$/gpd</i>
				270	Service Connection	0.00	0	\$0.00	
				295	Downstream Manhole	0.00	0	\$0.00	
				295	End TV Observation	0.00	0	\$0.00	
(RV23)1077 - (RV23)1476									
2/18/2011 EL PASO									
	6	4	224	225					
				0	Downstream Manhole	0.00	0	\$0.00	
				0	Begin TV Observation	0.00	0	\$0.00	
				48	Joint w/ Light Roots	0.01	Grout	0	****
				59	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00 19.907
				81	Joint w/ Moderate Offset	0.07	Grout	1	****
				116	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00 19.907
				149	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00 19.907
				161	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00 29.861
				171	Pipe, Broken	0.50	Repair	5	\$4,300.00 5.972
				171	Abandoned Connection	0.00		0	\$0.00
				187	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00 19.907
				205	Service Connection	0.00		0	\$0.00
				217	Pipe, Broken	0.50	Repair	5	\$4,300.00 5.972
				217	Abandoned Connection	0.00		0	\$0.00
				220	Pipe, Broken	0.50	Repair	5	\$4,300.00 5.972
				220	Abandoned Connection	0.00		0	\$0.00
				224	Upstream Manhole	0.00		0	\$0.00
				224	End TV Observation	0.00		0	\$0.00

<i>Line Segment</i>					<i>-----Repair-----</i>				
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>	
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>(gpm)</i>		<i>(ft)</i>		<i>\$/gpd</i>	
			<i>Footage</i>	<i>Observations</i>					
(RV23)1473 - (RV23)1474									
2/18/2011 EL PASO									
6	3	174	289						
				0	Downstream Manhole		0.00	0	\$0.00
				0	Begin TV Observation		0.00	0	\$0.00
				23	Pipe w/ Circular Crack	Repair	0.10	5	\$4,300.00 29.861
				98	Service Connection		0.00	0	\$0.00
				125	Service Connection		0.00	0	\$0.00
				133	Joint w/ Light Roots	Grout	0.01	32	****
				143	Service Connection		0.00	0	\$0.00
				161	Pipe, Broken	Repair	0.50	5	\$4,300.00 5.972
				174	Joint w/ Moderate Offset	Grout	0.07	1	****
				174	Downstream Manhole		0.00	0	\$0.00
				174	Pipe, Broken	Repair	0.50	5	\$4,300.00 5.972
				174	End TV Observation		0.00	0	\$0.00
(RV23)1474 - (RV23)1475									
2/18/2011 EL PASO									
6	5	275	290						
				0	Downstream Manhole		0.00	0	\$0.00
				0	Begin TV Observation		0.00	0	\$0.00
				45	Pipe w/ Circular Crack	Repair	0.10	5	\$4,300.00 29.861
				67	Service Connection		0.00	0	\$0.00

<i>Line Segment</i>				<i>-----Repair-----</i>					
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>	
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>(gpm)</i>		<i>(ft)</i>		<i>\$/gpd</i>	
			68	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
			69	Service Connection	0.00		0	\$0.00	
			71	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
			116	Abandoned Connection	0.00		0	\$0.00	
			122	Joint w/ Light Roots	0.01	Grout	52	****	
			157	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
			157	Service Connection	0.00		0	\$0.00	
			165	Service Connection	0.00		0	\$0.00	
			210	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
			234	End TV Observation	0.00		0	\$0.00	
			234	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
			256	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
			269	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
			275	Upstream Manhole	0.00		0	\$0.00	
			275	Downstream Manhole	0.00		0	\$0.00	
			275	Begin TV Observation	0.00		0	\$0.00	

(RV23)1475 - (RV23)1476

2/18/2011 EL PASO

6 4 313 313

			0	Upstream Manhole	0.00		0	\$0.00	
			0	Begin TV Observation	0.00		0	\$0.00	
			24	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
			32	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
			34	Service Connection w/Defect	0.15	Repair	5	\$4,300.00	19.907
			42	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
			46	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
			47	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
			71	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861

<i>Line Segment</i>				<i>-----Repair-----</i>						
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>		
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>		
				87	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
				87	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
				97	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
				120	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
				134	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
				140	Service Connection	0.00		0	\$0.00	
				143	Pipe w/ Hole	0.50	Repair	5	\$4,300.00	5.972
				145	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
				159	Joint w/ Infiltration	0.05	Grout	0	****	
				164	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
				167	Camera Blocked	0.00		0	\$0.00	
				167	End TV Observation	0.00		0	\$0.00	
				184	Joint w/ Infiltration	0.05	Grout	0	****	
				191	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
				196	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
				207	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
				236	Service Connection	0.00		0	\$0.00	
				237	Service Connection	0.00		0	\$0.00	
				238	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
				243	Pipe, Broken	0.50	Repair	5	\$4,300.00	5.972
				268	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
				286	Pipe Material Change	0.00		0	\$0.00	
				290	Pipe Material Change	0.00		0	\$0.00	
				313	Downstream Manhole	0.00		0	\$0.00	
				313	Begin TV Observation	0.00		0	\$0.00	

(RV23)1482 - (RV23)1018

3/15/2011 C ST

8 5 50 50

Monday, October 17, 2011

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<i>Line Segment</i>		<i>-----Repair-----</i>						
<i>Date</i>	<i>Street</i>	<i>Segment</i>	<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>	
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>	
			0	Upstream Manhole	0.00	0	\$0.00	
			0	Begin TV Observation	0.00	0	\$0.00	
			32	Pipe Material Change	0.00	0	\$0.00	
			50	Downstream Manhole	0.00	0	\$0.00	
			50	End TV Observation	0.00	0	\$0.00	
(RV23)1501 - (RV23)1496								
1/21/2011	3RD DENVER							
6		300	300					
			0	Upstream Manhole	0.00	0	\$0.00	
			0	Begin TV Observation	0.00	0	\$0.00	
			6	Pipe w/ Circular Crack	0.10	Repair	5 \$4,000.00 27.778	
			19	Pipe w/ Circular Crack	0.10	Repair	5 \$4,000.00 27.778	
			29	Pipe w/ Circular Crack	0.10	Repair	5 \$4,000.00 27.778	
			49	Pipe w/ Circular Crack	0.10	Repair	5 \$4,000.00 27.778	
			57	Pipe w/ Circular Crack	0.10	Repair	5 \$4,000.00 27.778	
			69	Pipe w/ Circular Crack	0.10	Repair	5 \$4,000.00 27.778	
			71	Pipe w/ Longitudinal Crack	0.10	Repair	5 \$4,000.00 27.778	
			73	Pipe w/ Circular Crack	0.10	Repair	5 \$4,000.00 27.778	
			82	Pipe w/ Circular Crack	0.10	Repair	5 \$4,000.00 27.778	
			97	Service Connection w/ Break-In	0.15	Repair	5 \$4,000.00 18.519	
			99	Service Connection	0.00		0 \$0.00	
			101	Service Connection w/ Break-In	0.15	Repair	5 \$4,000.00 18.519	
			103	Service Connection	0.00		0 \$0.00	
			104	Pipe w/ Circular Crack	0.10	Repair	5 \$4,000.00 27.778	
			113	Pipe w/ Circular Crack	0.10	Repair	5 \$4,000.00 27.778	
			118	Pipe w/ Circular Crack	0.10	Repair	5 \$4,000.00 27.778	
			130	Pipe w/ Circular Crack	0.10	Repair	5 \$4,000.00 27.778	
			134	Pipe w/ Circular Crack	0.10	Repair	5 \$4,000.00 27.778	

<i>Line Segment</i>				<i>-----Repair-----</i>					
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>	
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>(gpm)</i>		<i>(ft)</i>		<i>\$/gpd</i>	
			160	Service Connection	0.00		0	\$0.00	
			192	Service Connection	0.00		0	\$0.00	
			216	Service Connection	0.00		0	\$0.00	
			229	Pipe w/ Circular Crack	0.10	Repair	5	\$4,000.00	27.778
			235	Service Connection w/ Break-In	0.15	Repair	5	\$4,000.00	18.519
			237	Service Connection w/ Break-In	0.15	Repair	5	\$4,000.00	18.519
			239	Pipe w/ Circular Crack	0.10	Repair	5	\$4,000.00	27.778
			241	Pipe w/ Circular Crack	0.10	Repair	5	\$4,000.00	27.778
			241	Service Connection w/ Break-In	0.15	Repair	5	\$4,000.00	18.519
			243	Service Connection w/ Break-In	0.15	Repair	5	\$4,000.00	18.519
			244	Pipe w/ Circular Crack	0.10	Repair	5	\$4,000.00	27.778
			247	Pipe w/ Circular Crack	0.10	Repair	5	\$4,000.00	27.778
			251	Pipe w/ Circular Crack	0.10	Repair	5	\$4,000.00	27.778
			268	Pipe w/ Circular Crack	0.10	Repair	5	\$4,000.00	27.778
			300	Downstream Manhole	0.00		0	\$0.00	
			300	End TV Observation	0.00		0	\$0.00	

(RV23)1502 - (RV23)1497

3/15/2011 COMMERCE

6 3 123 317

			0	Upstream Manhole	0.00		0	\$0.00	
			0	Begin TV Observation	0.00		0	\$0.00	
			22	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
			29	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
			34	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
			40	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
			42	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
			49	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
			50	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861

<i>Line Segment</i>				<i>-----Repair-----</i>						
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>		
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>		
				53	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
				54	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
				61	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
				66	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
				93	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
				103	Service Connection	0.00		0	\$0.00	
				122	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
				123	Camera Blocked	0.00		0	\$0.00	
				123	End TV Observation	0.00		0	\$0.00	
				317	Downstream Manhole	0.00		0	\$0.00	
				317	Begin TV Observation	0.00		0	\$0.00	
				317	End TV Observation	0.00		0	\$0.00	

(RV23)1503 - (RV23)1498
3/15/2011 BOULDER

6 4 132 279

0	Upstream Manhole	0.00		0	\$0.00	
0	Begin TV Observation	0.00		0	\$0.00	
6	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
23	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
58	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
73	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
74	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
77	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
77	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
80	Service Connection	0.00		0	\$0.00	
83	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
101	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
113	Camera Blocked	0.00		0	\$0.00	

<i>Line Segment</i>				<i>-----Repair-----</i>						
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>		
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>(gpm)</i>		<i>(ft)</i>		<i>\$/gpd</i>		
				113	End TV Observation	0.00		0	\$0.00	
				113	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
				260	Joint w/ Severe Offset	0.10	Repair	5	\$4,300.00	29.861
				260	End TV Observation	0.00		0	\$0.00	
				279	Downstream Manhole	0.00		0	\$0.00	
				279	Begin TV Observation	0.00		0	\$0.00	
(RV23)1504 - (RV23)1501										
1/21/2011	3RD DENVER									
6	3	298	305							
				0	Upstream Manhole	0.00		0	\$0.00	
				0	Begin TV Observation	0.00		0	\$0.00	
				2	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
				5	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
				46	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
				56	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
				66	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
				71	Service Connection	0.00		0	\$0.00	
				85	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
				103	Service Connection	0.00		0	\$0.00	
				129	Service Connection	0.00		0	\$0.00	
				146	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
				168	Service Connection	0.00		0	\$0.00	
				188	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
				189	Camera Blocked	0.00		0	\$0.00	
				189	End TV Observation	0.00		0	\$0.00	
				229	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
				289	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
				298	Downstream Manhole	0.00		0	\$0.00	

<i>Line Segment</i>				<i>-----Repair-----</i>				
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>
				298	Begin TV Observation	0.00	0	\$0.00
(RV23)1505 - (RV23)1502								
3/15/2011	COMMERCE							
6	3	300	300					
				0	Downstream Manhole	0.00	0	\$0.00
				0	Begin TV Observation	0.00	0	\$0.00
				6	Pipe w/ Circular Crack	0.10	Repair	5 \$4,300.00 29.861
				48	Pipe w/ Longitudinal Crack	0.10	Repair	5 \$4,300.00 29.861
				76	Service Connection	0.00		0 \$0.00
				90	Service Connection	0.00		0 \$0.00
				98	Service Connection w/ Break-In	0.15	Repair	5 \$4,300.00 19.907
				107	Service Connection	0.00		0 \$0.00
				129	Pipe w/ Longitudinal Crack	0.10	Repair	5 \$4,300.00 29.861
				158	Pipe w/ Longitudinal Crack	0.10	Repair	5 \$4,300.00 29.861
				168	Pipe w/ Circular Crack	0.10	Repair	5 \$4,300.00 29.861
				172	Pipe w/ Longitudinal Crack	0.10	Repair	5 \$4,300.00 29.861
				176	Pipe w/ Circular Crack	0.10	Repair	5 \$4,300.00 29.861
				180	Service Connection w/ Break-In	0.15	Repair	5 \$4,300.00 19.907
				207	Pipe w/ Longitudinal Crack	0.10	Repair	5 \$4,300.00 29.861
				212	Service Connection	0.00		0 \$0.00
				216	Service Connection w/ Break-In	0.15	Repair	5 \$4,300.00 19.907
				233	Service Connection	0.00		0 \$0.00
				250	Pipe w/ Circular Crack	0.10	Repair	5 \$4,300.00 29.861
				268	Service Connection	0.00		0 \$0.00
				268	Pipe Material Change	0.00		0 \$0.00
				269	Pipe Material Change	0.00		0 \$0.00
				273	Pipe w/ Circular Crack	0.10	Repair	5 \$4,300.00 29.861
				276	Pipe w/ Circular Crack	0.10	Repair	5 \$4,300.00 29.861

<i>Line Segment</i>					<i>-----Repair-----</i>					
<i>Date</i>	<i>Street</i>	<i>Segment</i>			<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>	
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>		<i>\$/gpd</i>	
				277	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
				281	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
				294	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
				300	Upstream Manhole	0.00		0	\$0.00	
				300	End TV Observation	0.00		0	\$0.00	
(RV23)1509 - (RV23)1504										
1/21/2011 3RD DENVER										
				6	2	119		303		
				0	Downstream Manhole	0.00		0	\$0.00	
				0	Begin TV Observation	0.00		0	\$0.00	
				17	Pipe Material Change	0.00		0	\$0.00	
				21	Pipe Material Change	0.00		0	\$0.00	
				52	Service Connection	0.00		0	\$0.00	
				97	Joint w/ Light Roots	0.01	Grout	0	****	
				105	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
				113	Camera Blocked	0.00		0	\$0.00	
				113	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
				113	End TV Observation	0.00		0	\$0.00	
				113	Roots	0.01	Repair	5	\$4,300.00	298.611
				299	Camera Blocked	0.00		0	\$0.00	
				299	End TV Observation	0.00		0	\$0.00	
				303	Upstream Manhole	0.00		0	\$0.00	
				303	Begin TV Observation	0.00		0	\$0.00	

<i>Line Segment</i>				<i>-----Repair-----</i>				
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>(gpm)</i>		<i>(ft)</i>		<i>\$/gpd</i>
			<i>Footage</i>		<i>Observations</i>			
(RV23)1510 - (RV23)1505								
3/15/2011	COMMERCE							
6	4	319	354					
				0.00		0	\$0.00	
				0.00		0	\$0.00	
				0.10	Repair	5	\$4,300.00	29.861
				0.10	Repair	5	\$4,300.00	29.861
				0.10	Repair	5	\$4,300.00	29.861
				0.15	Repair	5	\$4,300.00	19.907
				0.00		0	\$0.00	
				0.00		0	\$0.00	
				0.15	Repair	5	\$4,300.00	19.907
				0.01	Grout	219	****	
				0.15	Repair	5	\$4,300.00	19.907
				0.10	Repair	5	\$4,300.00	29.861
				0.15	Repair	5	\$4,300.00	19.907
				0.10	Repair	5	\$4,300.00	29.861
				0.15	Repair	5	\$4,300.00	19.907
				0.10	Repair	5	\$4,300.00	29.861
				0.00		0	\$0.00	
				0.10	Repair	5	\$4,300.00	29.861
				0.10	Repair	5	\$4,300.00	29.861
				0.10	Repair	5	\$4,300.00	29.861
				0.10	Repair	5	\$4,300.00	29.861
				0.10	Repair	5	\$4,300.00	29.861
				0.10	Repair	5	\$4,300.00	29.861
				0.50	Repair	5	\$4,300.00	5.972
				0.10	Repair	5	\$4,300.00	29.861

<i>Line Segment</i>				<i>-----Repair-----</i>				
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(ft)</i>		<i>\$/gpd</i>
				270	Service Connection	0	\$0.00	
				290	Pipe w/ Longitudinal Crack	5	\$4,300.00	29.861
				309	Pipe w/ Longitudinal Crack	5	\$4,300.00	29.861
				317	Camera Blocked	0	\$0.00	
				317	Pipe w/ Circular Crack	5	\$4,300.00	29.861
				317	End TV Observation	0	\$0.00	
				317	Service Connection w/ Break-In	5	\$4,300.00	19.907
				352	Pipe w/ Circular Crack	5	\$4,300.00	29.861
				352	End TV Observation	0	\$0.00	
				354	Upstream Manhole	0	\$0.00	
				354	Begin TV Observation	0	\$0.00	

(RV23)1512 - (EV23)1509

2/16/2011 C ST

6 3 543 544

0	Upstream Manhole	0.00		0	\$0.00	
0	Begin TV Observation	0.00		0	\$0.00	
32	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
34	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
38	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
58	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
63	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
70	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
101	Pipe w/ Hole	0.50	Repair	5	\$4,300.00	5.972
102	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
121	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
138	Joint w/ Light Roots	0.01	Grout	152	****	
182	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
204	Pipe, Broken	0.50	Repair	5	\$4,300.00	5.972

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<i>Line Segment</i>				<i>-----Repair-----</i>						
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>		
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>		
				254	Service Connection w/Defect	0.15	Repair	5	\$4,300.00	19.907
				259	Service Connection w/Defect	0.15	Repair	5	\$4,300.00	19.907
				269	Service Connection	0.00		0	\$0.00	
				320	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
				340	Service Connection	0.00		0	\$0.00	
				357	Pipe, Broken	0.50	Repair	5	\$4,300.00	5.972
				359	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
				368	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
				386	Service Connection	0.00		0	\$0.00	
				387	Joint w/ Infiltration	0.05	Grout	0	****	
				387	Dyed Water Data	0.00		0	\$0.00	
				389	Joint w/ Infiltration	0.05	Grout	0	****	
				389	Dyed Water Data	0.00		0	\$0.00	
				391	Joint w/ Infiltration	0.05	Grout	0	****	
				391	Dyed Water Data	0.00		0	\$0.00	
				405	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
				428	Service Connection	0.00		0	\$0.00	
				430	Pipe, Broken	0.50	Repair	5	\$4,300.00	5.972
				457	Service Connection	0.00		0	\$0.00	
				465	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
				494	Service Connection	0.00		0	\$0.00	
				504	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
				529	Joint w/ Infiltration	0.05	Grout	0	****	
				529	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
				529	Dyed Water Data	0.00		0	\$0.00	
				535	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
				540	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
				543	Downstream Manhole	0.00		0	\$0.00	
				543	End TV Observation	0.00		0	\$0.00	

<i>Line Segment</i>		<i>-----Repair-----</i>						
<i>Date</i>	<i>Street</i>	<i>Segment</i>	<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>	
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(ft)</i>	<i>\$/gpd</i>		
(RV23)1515 - (RV23)1512								
2/16/2011	C ST							
6	5	46	272					
			0	Begin TV Observation	0.00	0	\$0.00	
			6	Joint, Seperated	0.70	Repair	5 \$4,300.00 4.266	
			13	Joint w/ Moderate Offset	0.07	Grout	1 ****	
			18	Joint w/ Infiltration	0.05	Grout	0 ****	
			18	Dyed Water Data	0.00		0 \$0.00	
			25	Joint w/ Infiltration	0.05	Grout	0 ****	
			25	Dyed Water Data	0.00		0 \$0.00	
			28	Pipe w/ Circular Crack	0.10	Repair	5 \$4,300.00 29.861	
			31	Joint w/ Infiltration	0.05	Grout	0 ****	
			31	Dyed Water Data	0.00		0 \$0.00	
			34	Pipe, Broken	0.50	Repair	5 \$4,300.00 5.972	
			38	Service Connection	0.00		0 \$0.00	
			40	Pipe w/ Circular Crack	0.10	Repair	5 \$4,300.00 29.861	
			40	Service Connection	0.00		0 \$0.00	
			41	Camera Blocked	0.00		0 \$0.00	
			41	End TV Observation	0.00		0 \$0.00	
			267	Camera Blocked	0.00		0 \$0.00	
			267	Joint w/ Heavy Roots	0.05	Grout	0 ****	
			267	Pipe w/ Circular Crack	0.10	Repair	5 \$4,300.00 29.861	
			267	End TV Observation	0.00		0 \$0.00	
			272	Upstream Manhole	0.00		0 \$0.00	
			272	Begin TV Observation	0.00		0 \$0.00	

<i>Line Segment</i>		<i>-----Repair-----</i>						
<i>Date</i>	<i>Street</i>	<i>Segment</i>	<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>	
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>
(RV23)1518 - (RV23)1513								
2/16/2011	COMMERCE							
6	6	296		296				
			0	Upstream Manhole	0.00		0	\$0.00
			0	Begin TV Observation	0.00		0	\$0.00
			2	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00 29.861
			7	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00 29.861
			11	Pipe Material Change	0.00		0	\$0.00
			13	Pipe Material Change	0.00		0	\$0.00
			21	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00 29.861
			77	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00 29.861
			87	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00 29.861
			88	Service Connection	0.00		0	\$0.00
			94	Pipe, Broken	0.50	Repair	5	\$4,300.00 5.972
			107	Joint w/ Light Roots	0.01	Grout	13	****
			107	Service Connection w/Defect	0.15	Repair	5	\$4,300.00 19.907
			160	Joint w/ Light Roots	0.01	Grout	55	****
			160	Service Connection w/Defect	0.15	Repair	5	\$4,300.00 19.907
			186	Pipe, Broken	0.50	Repair	5	\$4,300.00 5.972
			187	Pipe, Broken	0.50	Repair	5	\$4,300.00 5.972
			187	Service Connection	0.00		0	\$0.00
			189	Pipe, Broken	0.50	Repair	5	\$4,300.00 5.972
			195	Pipe, Broken	0.50	Repair	5	\$4,300.00 5.972
			225	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00 19.907
			230	Joint w/ Light Roots	0.01	Grout	66	****
			255	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00 29.861
			255	Service Connection	0.00		0	\$0.00
			269	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00 29.861

<i>Line Segment</i>				<i>-----Repair-----</i>						
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>		
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>(gpm)</i>		<i>(ft)</i>		<i>\$/gpd</i>		
				277	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
				279	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
				288	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$4,300.00	29.861
				296	Downstream Manhole	0.00		0	\$0.00	
				296	End TV Observation	0.00		0	\$0.00	
(RV23)1523 - (RV23)1518										
2/16/2011 COMMERCE										
		6	4	306	306					
				0	Upstream Manhole	0.00		0	\$0.00	
				0	Begin TV Observation	0.00		0	\$0.00	
				19	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
				38	Service Connection w/Defect	0.15	Repair	5	\$4,300.00	19.907
				47	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
				51	Service Connection	0.00		0	\$0.00	
				54	Joint w/ Light Roots	0.01	Grout	0	****	
				95	Joint w/ Light Roots	0.01	Grout	18	****	
				125	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
				131	Joint w/ Medium Roots	0.03	Grout	0	****	
				131	Pipe w/ Hole	0.50	Repair	5	\$4,300.00	5.972
				132	Camera Blocked	0.00		0	\$0.00	
				132	Pipe, Broken	0.50	Repair	5	\$4,300.00	5.972
				132	End TV Observation	0.00		0	\$0.00	
				132	End TV Observation	0.00		0	\$0.00	
				132	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
				134	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00	19.907
				137	Service Connection w/Defect	0.15	Repair	5	\$4,300.00	19.907
				193	Service Connection w/Defect	0.15	Repair	5	\$4,300.00	19.907
				217	Joint w/ Light Roots	0.01	Grout	0	****	

<i>Line Segment</i>					<i>-----Repair-----</i>					
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>		
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>(gpm)</i>		<i>(ft)</i>		<i>\$/gpd</i>		
				230	Service Connection	0.00		0	\$0.00	
				235	Joint w/ Medium Roots	0.03	Grout	13	****	
				287	Pipe w/ Hole	0.50	Repair	5	\$4,300.00	5.972
				304	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
				306	Begin TV Observation	0.00		0	\$0.00	
(RV23)1556 - (RV23)1488										
3/15/2011 COMMERCE										
10	4	307	307							
				0	Upstream Manhole	0.00		0	\$0.00	
				0	Begin TV Observation	0.00		0	\$0.00	
				12	Pipe w/ Hole	0.50	Repair	5	\$3,750.00	5.208
				13	Pipe, Collapsed	0.10	Repair	5	\$3,750.00	26.042
				26	Pipe w/ Circular Crack	0.10	Repair	5	\$3,750.00	26.042
				34	Pipe w/ Circular Crack	0.10	Repair	5	\$3,750.00	26.042
				55	Service Connection w/ Break-In	0.15	Repair	5	\$3,750.00	17.361
				68	Pipe w/ Circular Crack	0.10	Repair	5	\$3,750.00	26.042
				73	Pipe w/ Circular Crack	0.10	Repair	5	\$3,750.00	26.042
				81	Pipe w/ Circular Crack	0.10	Repair	5	\$3,750.00	26.042
				83	Pipe w/ Circular Crack	0.10	Repair	5	\$3,750.00	26.042
				94	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$3,750.00	26.042
				122	Pipe w/ Circular Crack	0.10	Repair	5	\$3,750.00	26.042
				125	Pipe w/ Circular Crack	0.10	Repair	5	\$3,750.00	26.042
				138	Pipe w/ Circular Crack	0.10	Repair	5	\$3,750.00	26.042
				140	Pipe w/ Circular Crack	0.10	Repair	5	\$3,750.00	26.042
				173	Service Connection w/ Break-In	0.15	Repair	5	\$3,750.00	17.361
				184	Service Connection w/ Break-In	0.15	Repair	5	\$3,750.00	17.361
				195	Pipe w/ Longitudinal Crack	0.10	Repair	5	\$3,750.00	26.042
				249	Pipe w/ Circular Crack	0.10	Repair	5	\$3,750.00	26.042

<i>Line Segment</i>				<i>-----Repair-----</i>					
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>	
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>(gpm)</i>		<i>(ft)</i>		<i>\$/gpd</i>	
				307	Downstream Manhole	0	\$0.00		
				307	End TV Observation	0	\$0.00		
(RV23)1557 - (RV23)1556									
2/17/2011	ARKANSAS								
10	4	325	325						
				0	Upstream Manhole	0	\$0.00		
				0	Begin TV Observation	0	\$0.00		
				42	Pipe w/ Circular Crack	5	\$4,300.00	29.861	
				73	Pipe w/ Circular Crack	5	\$4,300.00	29.861	
				83	Pipe Material Change	0	\$0.00		
				99	Pipe Material Change	0	\$0.00		
				103	Pipe, Broken	5	\$4,300.00	5.972	
				104	Pipe w/ Longitudinal Crack	5	\$4,300.00	29.861	
				117	Pipe w/ Circular Crack	5	\$4,300.00	29.861	
				140	Pipe w/ Circular Crack	5	\$4,300.00	29.861	
				168	Service Connection w/ Break-In	5	\$4,300.00	19.907	
				170	Service Connection w/ Break-In	5	\$4,300.00	19.907	
				180	Pipe, Broken	5	\$4,300.00	5.972	
				194	Abandoned Connection	0	\$0.00		
				204	Service Connection w/ Break-In	5	\$4,300.00	19.907	
				232	Service Connection w/ Break-In	5	\$4,300.00	19.907	
				234	Pipe, Broken	5	\$4,300.00	5.972	
				253	Pipe, Broken	5	\$4,300.00	5.972	
				257	Pipe w/ Circular Crack	5	\$4,300.00	29.861	
				270	Service Connection w/ Break-In	5	\$4,300.00	19.907	
				288	Pipe w/ Circular Crack	5	\$4,300.00	29.861	
				312	Joint w/ Infiltration	0	****		
				312	Dyed Water Data	0	\$0.00		

<i>Line Segment</i>					<i>-----Repair-----</i>					
<i>Date</i>	<i>Street</i>	<i>Segment</i>			<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>	
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>		<i>\$/gpd</i>	
				316	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00	29.861
				325	Downstream Manhole	0.00		0	\$0.00	
				325	Joint, Cracked	0.50	Repair	5	\$4,300.00	5.972
				325	End TV Observation	0.00		0	\$0.00	

(RV23)1559 - (RV23)1558
 2/25/2011 ESMT OFF ARKANSAS
 10 4 231 253

0	Upstream Manhole	0.00		0	\$0.00	
0	Begin TV Observation	0.00		0	\$0.00	
24	Pipe, Broken	0.50	Repair	5	\$3,750.00	5.208
24	Abandoned Connection	0.00		0	\$0.00	
42	Pipe, Broken	0.50	Repair	5	\$3,750.00	5.208
42	Abandoned Connection	0.00		0	\$0.00	
45	Pipe Material Change	0.00		0	\$0.00	
67	Pipe Material Change	0.00		0	\$0.00	
71	Pipe, Broken	0.50	Repair	5	\$3,750.00	5.208
71	Abandoned Connection	0.00		0	\$0.00	
75	Pipe, Broken	0.50	Repair	5	\$3,750.00	5.208
75	Abandoned Connection	0.00		0	\$0.00	
90	Pipe, Broken	0.50	Repair	5	\$3,750.00	5.208
90	Abandoned Connection	0.00		0	\$0.00	
117	Pipe, Broken	0.50	Repair	5	\$3,750.00	5.208
117	Abandoned Connection	0.00		0	\$0.00	
155	Pipe, Broken	0.50	Repair	5	\$3,750.00	5.208
155	Abandoned Connection	0.00		0	\$0.00	
182	Pipe, Broken	0.50	Repair	5	\$3,750.00	5.208
182	Abandoned Connection	0.00		0	\$0.00	
183	Pipe w/ Circular Crack	0.10	Repair	5	\$3,750.00	26.042

<i>Line Segment</i>				<i>-----Repair-----</i>						
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>		
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>		
				215	Pipe, Broken	0.50	Repair	5	\$3,750.00	5.208
				215	Abandoned Connection	0.00		0	\$0.00	
				222	Pipe Material Change	0.00		0	\$0.00	
				227	Pipe Material Change	0.00		0	\$0.00	
				231	Downstream Manhole	0.00		0	\$0.00	
				231	End TV Observation	0.00		0	\$0.00	

(RV23)1563 - (RV23)1567
 3/2/2011 N ARKANSAS AVE
 10 145 223

0	Upstream Manhole	0.00		0	\$0.00	
0	Begin TV Observation	0.00		0	\$0.00	
119	Service Connection w/ Break-In	0.15	Repair	5	\$3,500.00	16.204
145	Camera Blocked	0.00		0	\$0.00	
145	End TV Observation	0.00		0	\$0.00	

(RV23)1567 - (RV23)1559
 2/25/2011 ESMT OFF ARKANSAS
 10 23 188

0	Upstream Manhole	0.00		0	\$0.00	
0	Begin TV Observation	0.00		0	\$0.00	
23	Camera Blocked	0.00		0	\$0.00	
23	Joint w/ Severe Offset	0.10	Repair	5	\$3,500.00	24.306
23	End TV Observation	0.00		0	\$0.00	

<i>Line Segment</i>				<i>-----Repair-----</i>				
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>
				188	Downstream Manhole	0.00	0	\$0.00
				188	Begin TV Observation	0.00	0	\$0.00
				188	End TV Observation	0.00	0	\$0.00
				188	Pipe w/ 76-100 Percent Flow	0.00	0	\$0.00

(RV23)1569 - (RV23)1563
 3/2/2011 N ARKANSAS AVE
 10 5 310 310

0	Upstream Manhole	0.00	0	\$0.00	
0	Begin TV Observation	0.00	0	\$0.00	
31	Pipe w/ Circular Crack	0.10	Repair	5	\$4,300.00 29.861
71	Service Connection w/Defect	0.15	Repair	5	\$4,300.00 19.907
119	Service Connection w/ Break-In	0.15	Repair	5	\$4,300.00 19.907
310	Downstream Manhole	0.00		0	\$0.00
310	End TV Observation	0.00		0	\$0.00

(RV23)2058 - (RV23)1482
 2/16/2011 C ST
 6 301 305

0	Upstream Manhole	0.00		0	\$0.00
0	Begin TV Observation	0.00		0	\$0.00
23	Pipe w/ Circular Crack	0.10	Repair	5	\$4,000.00 27.778
27	Pipe w/ Circular Crack	0.10	Repair	5	\$4,000.00 27.778
41	Pipe w/ Circular Crack	0.10	Repair	5	\$4,000.00 27.778

<i>Line Segment</i>				<i>-----Repair-----</i>						
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>		
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(gpm)</i>	<i>(ft)</i>	<i>\$/gpd</i>		
				43	Pipe w/ Circular Crack	0.10	Repair	5	\$4,000.00	27.778
				50	Pipe w/ Circular Crack	0.10	Repair	5	\$4,000.00	27.778
				50	Pipe, Broken	0.50	Repair	5	\$4,000.00	5.556
				53	Pipe w/ Circular Crack	0.10	Repair	5	\$4,000.00	27.778
				54	Service Connection	0.00		0	\$0.00	
				55	Pipe w/ Circular Crack	0.10	Repair	5	\$4,000.00	27.778
				59	Pipe w/ Circular Crack	0.10	Repair	5	\$4,000.00	27.778
				81	Pipe w/ Circular Crack	0.10	Repair	5	\$4,000.00	27.778
				83	Service Connection	0.00		0	\$0.00	
				103	Pipe, Broken	0.50	Repair	5	\$4,000.00	5.556
				111	Service Connection	0.00		0	\$0.00	
				115	Service Connection w/ Break-In	0.15	Repair	5	\$4,000.00	18.519
				128	Pipe w/ Circular Crack	0.10	Repair	5	\$4,000.00	27.778
				136	Pipe, Broken	0.50	Repair	5	\$4,000.00	5.556
				137	Pipe, Broken	0.50	Repair	5	\$4,000.00	5.556
				155	Pipe w/ Circular Crack	0.10	Repair	5	\$4,000.00	27.778
				159	Pipe w/ Circular Crack	0.10	Repair	5	\$4,000.00	27.778
				172	Abandoned Connection	0.00		0	\$0.00	
				205	Service Connection w/ Break-In	0.15	Repair	5	\$4,000.00	18.519
				208	Camera Blocked	0.00		0	\$0.00	
				208	End TV Observation	0.00		0	\$0.00	
				221	Abandoned Connection	0.00		0	\$0.00	
				231	Abandoned Connection	0.00		0	\$0.00	
				252	Pipe w/ Circular Crack	0.10	Repair	5	\$4,000.00	27.778
				252	Service Connection w/ Break-In	0.15	Repair	5	\$4,000.00	18.519
				284	Service Connection w/ Break-In	0.15	Repair	5	\$4,000.00	18.519
				301	Begin TV Observation	0.00		0	\$0.00	

<i>Line Segment</i>							<i>-----Repair-----</i>			
<i>Date</i>	<i>Street</i>	<i>Segment</i>		<i>Flow</i>	<i>Type</i>	<i>Length</i>	<i>Cost</i>	<i>Ratio</i>		
<i>Diam</i>	<i>Depth</i>	<i>TV Length</i>	<i>Length</i>	<i>Footage</i>	<i>Observations</i>	<i>(ft)</i>		<i>\$/gpd</i>		
<i>(RV23)2859A - (RV23)1489</i>										
<i>2/16/2011</i>	<i>C ST</i>									
<i>6</i>	<i>2</i>	<i>0</i>	<i>233</i>	<i>0</i>	<i>Camera Blocked</i>	<i>0.00</i>		<i>0</i>		

Total TV Length (ft) 23,557

Total Segment Length (ft) 29,349

APPENDIX F

**MANHOLE REHABILITATION
RECOMMENDATIONS**



Manhole Rehabilitation Recommendations

Project Number 18-2455-00 Russellville, Arkansas

Manhole	Repair Description	Street Address	Construction	Surface	Depth	Rating	Grade	Repair Cost	Cummulative Repair Cost	Inflow (GPD)	Infilt (GPD)	Flow (GPD)	Cummulative Flow (GPD)	Ratio (\$/GPD)	Count
RV07-1001	Seal Wall Only (Concrete)	Unknown GLENWOOD AVE	Rehab	Non-Paved	7.12	32.5	C	\$712	\$712	0	144	144	144	4.944	41
RV07-1010	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	unknown N GLENWOOD AVE	Poured	Non-Paved	4.84	12.5	B	\$925	\$1,637	144	0	144	288	6.424	42
RV07-1436	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	2320 16TH ST	Precast	Non-Paved	0.00	6.0	A	\$925	\$2,562	720	0	720	1,008	1.285	43
RV07-1448	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	Unknown J ST	Rehab	Non-Paved	19.83	17.5	B	\$925	\$3,487	867	0	867	1,875	1.067	44
RV07-1467	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	UNKNOWN EL MIRA	Poured	Paved	4.70	18.5	B	\$1,075	\$4,562	1,332	0	1,332	3,207	0.807	45
RV07-1484	Replace Cover/Frame/Frame Seal & Grout Lower 18" (Paved or Non-Paved)	550 N EL PASO AVE	Rehab	Non-Paved	5.18	14.5	B	\$1,225	\$5,787	72	1,037	1,109	4,316	1.105	46
RV07-1708	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1501 E 16th ST	Poured	Non-Paved	10.60	21.5	B	\$925	\$6,712	1,440	0	1,440	5,756	0.642	47
RV07-1738	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	Unknown EL PASO ST	Poured	Non-Paved	10.69	19.5	B	\$925	\$7,637	720	0	720	6,476	1.285	48
RV07-1788	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1018 16TH ST	Poured	Non-Paved	3.94	12.5	B	\$925	\$8,562	72	0	72	6,548	12.847	49
RV07-1829	Compete Manhole Rehab w/ New Frame and Cover (Paved or Non-Paved)	Unknown EL PASO ST	Rehab	Non-Paved	6.21	19.5	B	\$1,846	\$10,408	1,224	360	1,584	8,132	1.165	50
RV07-1830A	Compete Manhole Rehab w/ New Frame and Cover (Paved or Non-Paved)	UNKNOWN N GLENWOOD AVE	Poured	Non-Paved	7.36	17.5	B	\$1,961	\$12,369	1,584	317	1,901	10,032	1.032	51
RV07-2085	Replace Cover/Frame/Frame Seal & Coat Manhole (Brick) (Paved or Non-Paved)	615 W J ST	Brick	Paved	7.74	29.5	B	\$3,123	\$15,492	72	360	432	10,464	7.229	52
RV07-2153	Compete Manhole Rehab w/ New Frame and Cover (Paved or Non-Paved)	550 N EL PASO AVE	None	Non-Paved	4.80	9.5	A	\$1,705	\$17,197	1,080	317	1,397	11,861	1.221	53
RV07-2155	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	unKNOWN N GLENWOOD AVE	Poured	Non-Paved	4.70	29.5	B	\$925	\$18,122	8,640	0	8,640	20,501	0.107	54
RV07-2197A	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	2000 W PARKWAY AVE	Poured	Non-Paved	9.99	145.5	F	\$925	\$19,047	720	0	720	21,221	1.285	55
RV07-2198	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	Unknown PARKWAY DR	Poured	Paved	13.54	19.5	B	\$1,075	\$20,122	720	0	720	21,941	1.493	56
RV07-2210	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	Unknown N GLENWOOD AVE	Poured	Non-Paved	20.49	17.5	B	\$925	\$21,047	288	0	288	22,229	3.212	57
RV07-2247	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	2001 W PARKWAY AVE	Poured	Non-Paved	5.96	14.5	B	\$925	\$21,972	173	0	173	22,402	5.353	58
RV07-2250	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	UNKNOWN W PARKWAY DR	Poured	Non-Paved	4.54	14.5	B	\$925	\$22,897	173	0	173	22,575	5.353	59
RV07-2252	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	2015 W PARKWAY DR	Poured	Non-Paved	5.44	14.5	B	\$925	\$23,822	173	0	173	22,748	5.353	60
RV07-2806	Compete Manhole Rehab w/ New Frame and Cover (Paved or Non-Paved)	920 N FARGO	Rehab	Paved	4.61	24.5	B	\$1,836	\$25,658	2,091	677	2,768	25,515	0.663	61
RV07-2810	Grout Lower 18" of Manhole	2505 W PARKWAY DR	Poured	Non-Paved	4.66	12.5	B	\$300	\$25,958	0	1,037	1,037	26,552	0.289	62
RV07-2812	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	2415 W PARKWAY DR	Poured	Non-Paved	6.90	14.5	B	\$925	\$26,883	720	0	720	27,272	1.285	63
RV07-2860	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	Unknown GLENWOOD AVE	Rehab	Non-Paved	4.88	22.5	B	\$925	\$27,808	4,332	0	4,332	31,604	0.214	64
RV07-2861	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	UNKNOWN N HOUSTON AVE	Poured	Non-Paved	5.10	18.5	B	\$925	\$28,733	3,466	0	3,466	35,070	0.267	65
RV07-2866	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	2000 W PARKWAY DR	Poured	Paved	9.06	19.5	B	\$1,075	\$29,808	720	0	720	35,790	1.493	66
RV07-2882	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	Unknown N GLENWOOD AVE	Poured	Non-Paved	7.99	14.5	B	\$925	\$30,733	720	0	720	36,510	1.285	67
RV07-2882A	Replace Cover/Frame/Frame Seal & Coat Manhole (Brick) (Paved or Non-Paved)	Unknown N GLENWOOD AVE	Brick	Non-Paved	9.63	32.5	C	\$3,251	\$33,984	2,091	360	2,451	38,961	1.326	68
RV07-2888	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	401 WACO	Poured	Paved	4.44	12.5	B	\$1,075	\$35,059	1,080	0	1,080	40,041	0.995	69
RV07-3001	Replace Cover/Frame/Frame Seal & Grout Lower 18" (Paved or Non-Paved)	401 WACO	Rehab	Non-Paved	12.75	27.0	B	\$1,225	\$36,284	576	2,880	3,456	43,497	0.354	70
RV07-3037	Replace Cover/Frame/Frame Seal & Seal Wall (Concrete) (Paved or Non-Paved)	Unknown CUMBERLAND DR	Rehab	Non-Paved	13.56	16.5	B	\$2,381	\$38,665	72	720	792	44,289	3.006	71
RV07-3423	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	Unknown CUMBERLAND DR	Rehab	Non-Paved	14.40	17.5	B	\$925	\$39,590	576	0	576	44,865	1.606	72
RV07-3424	Grout Lower 18" of Manhole	Unknown WACO ST	Poured	Non-Paved	14.71	17.5	B	\$300	\$39,890	0	432	432	45,297	0.694	73
RV07-3430	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	401 N WACO	Poured	Paved	3.66	19.5	B	\$1,075	\$40,965	720	0	720	46,017	1.493	74
RV07-6000	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1302 S UTICA AVE	Rehab	Non-Paved	5.29	14.5	B	\$925	\$41,890	1,732	0	1,732	47,749	0.534	75
RV07-6005	Grout Lower 18" of Manhole	unknown S KNOXVILLE	Poured	Non-Paved	13.77	26.5	B	\$300	\$42,190	0	317	317	48,066	0.947	76
RV07-6006	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	unknown S KNOXVILLE	Poured	Non-Paved	0.00	139.5	F	\$925	\$43,115	720	0	720	48,786	1.285	77
RV07-6007	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	unknown S PITTSBURG	Poured	Non-Paved	13.26	31.5	C	\$925	\$44,040	720	0	720	49,506	1.285	78
RV07-6008	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	UNKNOWN E 9TH ST	Poured	Non-Paved	11.90	19.5	B	\$925	\$44,965	720	0	720	50,226	1.285	79
RV07-6009	Seal Wall Only (Concrete)	1124 E 9TH ST	Rehab	Non-Paved	11.04	13.5	B	\$1,104	\$46,069	0	360	360	50,586	3.067	80

Manhole	Repair Description	Street Address	Construction	Surface	Depth	Rating	Grade	Repair Cost	Cummulative Repair Cost	Inflow (GPD)	Infilt (GPD)	Flow (GPD)	Cummulative Flow (GPD)	Ratio (\$/GPD)	Count
RV07-6010	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1114 E 9TH ST	Precast	Non-Paved	8.66	17.5	B	\$925	\$46,994	867	0	867	51,453	1.067	81
RV07-6012	Seal Corbel & Replace Frame Seal (Paved or Non-Paved)	807 S MOBILE AVE	Precast	Non-Paved	8.03	17.5	B	\$1,175	\$48,169	1,224	0	1,224	52,677	0.960	82
RV07-6013	Seal Corbel Only (Concrete)	1201 E 8TH ST	Precast	Non-Paved	5.08	12.5	B	\$500	\$48,669	504	0	504	53,181	0.992	83
RV07-6014	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1103 EAST 8TH ST	Precast	Non-Paved	4.95	14.5	B	\$925	\$49,594	720	0	720	53,901	1.285	84
RV07-6015	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	804 SOUTH MOBILE	Rehab	Non-Paved	5.62	12.5	B	\$925	\$50,519	720	144	864	54,765	1.071	85
RV07-6016	Replace Cover/Frame/Frame Seal & Seal Wall (Concrete) (Paved or Non-Paved)	810 S LOUISVILLE AVE	Precast	Non-Paved	6.02	10.5	B	\$1,627	\$52,146	288	360	648	55,413	2.511	86
RV07-6018	Compete Manhole Rehab w/ New Frame and Cover (Paved or Non-Paved)	909 S OSWEGO AVE	Rehab	Non-Paved	9.96	13.5	B	\$2,221	\$54,367	1,836	360	2,196	57,609	1.011	87
RV07-6019	Replace Cover/Frame/Frame Seal & Coat Manhole (Brick) (Paved or Non-Paved)	1219 E 10Th ST	Brick	Non-Paved	8.59	26.0	B	\$3,043	\$57,410	1,378	360	1,738	59,347	1.751	88
RV07-6020	Replace Cover/Frame/Frame Seal & Grout Lower 18" (Paved or Non-Paved)	1207 E 10 ST	Rehab	Non-Paved	8.13	16.5	B	\$1,225	\$58,635	792	317	1,109	60,456	1.105	89
RV07-6021	Replace Cover/Frame/Frame Seal & Seal Wall (Concrete) (Paved or Non-Paved)	1121 E 10TH ST	Rehab	Non-Paved	7.65	13.5	B	\$1,790	\$60,425	72	360	432	60,888	4.144	90
RV07-6022	Seal Wall Only (Concrete)	1113 E 10 ST	Rehab	Non-Paved	6.72	11.5	B	\$672	\$61,097	0	360	360	61,248	1.867	91
RV07-6023	Seal Corbel & Replace Frame Seal (Paved or Non-Paved)	1109 E 11TH	Precast	Non-Paved	7.16	14.5	B	\$1,175	\$62,272	1,224	0	1,224	62,472	0.960	92
RV07-6024	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1105 E 10 ST	Rehab	Non-Paved	6.08	20.5	B	\$925	\$63,197	4,186	0	4,186	66,658	0.221	93
RV07-6025	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1110 E 11TH	Precast	Non-Paved	6.90	12.5	B	\$925	\$64,122	867	0	867	67,524	1.067	94
RV07-6026	Seal Corbel & Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1008 EAST 10TH	Precast	Non-Paved	0.00	15.5	B	\$1,425	\$65,547	1,296	360	1,656	69,180	0.861	95
RV07-6027	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1000 E 10TH ST	Not Visible	Non-Paved	5.62	5.0	A	\$925	\$66,472	72	0	72	69,252	12.847	96
RV07-6028	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1003 ITHACA	Not Visible	Non-Paved	6.12	10.0	A	\$925	\$67,397	1,332	0	1,332	70,584	0.694	97
RV07-6029	Repair Frame Seal & Grout Lower 18" of Manhole	1105 S OSWEGO AVE	Rehab	Non-Paved	6.38	75.5	F	\$975	\$68,372	720	1,440	2,160	72,744	0.451	98
RV07-6030	Replace Cover/Frame/Frame Seal & Seal Wall (Concrete) (Paved or Non-Paved)	1220 E 10TH ST	Rehab	Non-Paved	7.10	19.5	B	\$1,735	\$70,107	3,171	360	3,531	76,275	0.491	99
RV07-6031	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1123 E 11th ST	Rehab	Non-Paved	6.72	12.5	B	\$925	\$71,032	72	0	72	76,347	12.847	100
RV07-6032	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1107 E 12TH ST	Rehab	Non-Paved	6.72	16.5	B	\$925	\$71,957	792	0	792	77,139	1.168	101
RV07-6033	Compete Manhole Rehab w/ New Frame and Cover (Paved or Non-Paved)	1100 E 11TH ST	None	Non-Paved	5.98	15.5	B	\$1,823	\$73,780	1,224	360	1,584	78,723	1.151	102
RV07-6034	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1110 E 11TH ST	None	Non-Paved	4.44	9.5	A	\$925	\$74,705	1,378	0	1,378	80,101	0.671	103
RV07-6035	Seal Corbel & Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1010 E 11TH ST	None	Non-Paved	5.10	13.5	B	\$1,425	\$76,130	2,091	0	2,091	82,192	0.682	104
RV07-6036	Replace Cover/Frame/Frame Seal & Grout Lower 18" (Paved or Non-Paved)	1003 E 12TH ST	None	Non-Paved	5.22	10.5	B	\$1,225	\$77,355	72	317	389	82,581	3.151	105
RV07-6037	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1103 S ITHACA AVE	None	Non-Paved	3.64	9.0	A	\$925	\$78,280	1,371	0	1,371	83,952	0.675	106
RV07-6040	Complete Manhole Rehab w/o New Frame and Cover (Paved or Non-Paved)	1315 S PITTSBURG AVE	Brick	Paved	7.30	18.5	B	\$1,955	\$80,235	504	288	792	84,744	2.468	107
RV07-6042	Compete Manhole Rehab w/ New Frame and Cover (Paved or Non-Paved)	UNKNOWN E 16 ST	Poured	Non-Paved	4.90	8.5	A	\$1,715	\$81,950	1,371	1,397	2,768	87,512	0.620	108
RV07-6043	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1501 E 16th ST	Poured	Non-Paved	10.71	30.5	C	\$925	\$82,875	1,440	0	1,440	88,952	0.642	109
RV07-6083	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1806 E 16TH ST	Rehab	Non-Paved	7.51	12.5	B	\$925	\$83,800	576	0	576	89,528	1.606	110
RV07-6084	Seal Wall Only (Concrete)	1806 E 16TH ST	Rehab	Non-Paved	9.27	8.5	A	\$927	\$84,727	0	360	360	89,888	2.575	111
RV07-6085	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1338 S SIDNEY AVE	None	Non-Paved	2.91	9.5	A	\$925	\$85,652	288	0	288	90,176	3.212	112
RV07-6086	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1335 S SIDNEY ST	Rehab	Non-Paved	5.18	14.5	B	\$925	\$86,577	2,236	0	2,236	92,412	0.414	113
RV07-6087	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1333 S TAMPA AVE	Rehab	Non-Paved	8.69	14.5	B	\$925	\$87,502	1,732	0	1,732	94,144	0.534	114
RV07-6088	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1312 S SIDNEY AVE	None	Non-Paved	3.00	9.5	A	\$925	\$88,427	288	0	288	94,432	3.212	115
RV07-6089	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1313 S TAMPA AVE	Rehab	Non-Paved	5.71	19.5	B	\$925	\$89,352	1,732	0	1,732	96,165	0.534	116
RV07-6090	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1300 S SIDNEY AVE	None	Non-Paved	3.05	14.5	B	\$925	\$90,277	549	0	549	96,713	1.686	117
RV07-6091	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1815 E 13TH ST	None	Non-Paved	2.74	10.5	B	\$925	\$91,202	867	0	867	97,580	1.067	118
RV07-6093	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1213 S TAMPA AVE	Rehab	Non-Paved	3.29	18.5	B	\$925	\$92,127	1,732	0	1,732	99,312	0.534	119
RV07-6095	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1901 12th St	None	Non-Paved	2.45	9.5	A	\$925	\$93,052	288	0	288	99,600	3.212	120
RV07-6096	Seal Corbel & Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1911 E 14 ST	None	Paved	4.09	14.5	B	\$1,575	\$94,627	3,174	0	3,174	102,774	0.496	121
RV07-6097	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1101 S TAMPA AVE	Rehab	Non-Paved	5.31	22.5	B	\$925	\$95,552	1,945	0	1,945	104,720	0.475	122
RV07-6098	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1950 E 16TH ST	Rehab	Non-Paved	9.80	12.5	B	\$925	\$96,477	144	0	144	104,864	6.424	123

Manhole	Repair Description	Street Address	Construction	Surface	Depth	Rating	Grade	Repair Cost	Cummulative Repair Cost	Inflow (GPD)	Infilt (GPD)	Flow (GPD)	Cummulative Flow (GPD)	Ratio (\$/GPD)	Count
RV07-6100	Replace Cover/Frame/Frame Seal & Seal Wall (Concrete) (Paved or Non-Paved)	2107 E 16th ST	Rehab	Non-Paved	7.22	15.5	B	\$1,747	\$98,224	1,732	360	2,092	106,956	0.835	124
RV07-6101	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	2115 E 16TH ST	Rehab	Non-Paved	5.43	12.5	B	\$925	\$99,149	144	0	144	107,100	6.424	125
RV07-6102	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1402 S UTICA AVE	Rehab	Non-Paved	6.35	19.5	B	\$925	\$100,074	1,732	0	1,732	108,832	0.534	126
RV07-6103	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	2107 E 15TH ST	Rehab	Non-Paved	7.32	14.0	B	\$925	\$100,999	864	0	864	109,696	1.071	127
RV07-6104	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	2112 E 14TH ST	Rehab	Non-Paved	6.56	12.5	B	\$925	\$101,924	867	0	867	110,563	1.067	128
RV07-6105	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1504 S UTICA AVE	Rehab	Non-Paved	8.00	31.5	C	\$925	\$102,849	864	0	864	111,427	1.071	129
RV07-6106	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	2105 E 14TH ST	None	Non-Paved	3.96	12.5	B	\$925	\$103,774	720	0	720	112,147	1.285	130
RV07-6107	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	2113 E 14TH ST	None	Non-Paved	4.00	11.5	B	\$925	\$104,699	720	0	720	112,867	1.285	131
RV07-6112	Coat Manhole and Grout Lower 18" of Manhole (Brick/Block)	2109 E 12th ST	None	Non-Paved	2.58	7.0	A	\$558	\$105,257	504	0	504	113,371	1.107	132
RV07-6115	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	2320 16th ST	Rehab	Paved	8.11	30.5	C	\$1,075	\$106,332	1,781	0	1,781	115,152	0.603	133
RV07-6134	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1865 S ROCHESTER	None	Non-Paved	5.88	19.0	B	\$925	\$107,257	792	0	792	115,944	1.168	134
RV07-6135	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1704 S TAMPA ST	Rehab	Non-Paved	13.87	26.5	B	\$925	\$108,182	1,587	0	1,587	117,531	0.583	135
RV07-6137	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1700 S TAMPA AVE	Poured	Non-Paved	5.25	19.5	B	\$925	\$109,107	720	0	720	118,251	1.285	136
RV07-6139	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1804 S TAMPA AV.	Poured	Non-Paved	10.38	21.5	B	\$925	\$110,032	720	0	720	118,971	1.285	137
RV07-6142	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1908 S TAMPA ST	Poured	Paved	7.24	19.5	B	\$1,075	\$111,107	720	0	720	119,691	1.493	138
RV07-6144	Repair Frame Seal & Grout Lower 18" of Manhole	1832 MEADOWBROOK LN	Poured	Non-Paved	7.02	16.5	B	\$975	\$112,082	720	317	1,037	120,728	0.940	139
RV07-6147	Seal Wall Only (Concrete)	1705 S VERONA AVE	Poured	Paved	4.93	8.5	A	\$493	\$112,575	0	360	360	121,088	1.369	140
RV07-6148	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1805 S VERONA AVE	Poured	Non-Paved	5.60	15.5	B	\$925	\$113,500	720	360	1,080	122,168	0.856	141
RV07-6149	Seal Wall Only (Concrete)	1821 S VERONA AVE	Poured	Non-Paved	3.89	13.5	B	\$389	\$113,889	0	677	677	122,845	0.575	142
RV07-6152	Grout Lower 18" of Manhole	1500 E 16th ST	Poured	Non-Paved	15.32	17.5	B	\$300	\$114,189	0	720	720	123,565	0.417	143
RV07-6338	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1700 S TAMPA ST	Rehab	Non-Paved	10.94	55.5	D	\$925	\$115,114	245	0	245	123,810	3.779	144
RV07-6354	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1610 E 14TH PL	Poured	Paved	5.02	19.5	B	\$1,075	\$116,189	720	0	720	124,530	1.493	145
RV07-6358	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1412 S OSWEGO PL	Poured	Paved	3.73	14.5	B	\$1,075	\$117,264	720	0	720	125,250	1.493	146
RV07-6384	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	915 S ELMIRA ST	Poured	Non-Paved	6.44	9.5	A	\$925	\$118,189	867	0	867	126,117	1.067	147
RV07-6385A	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	UNKNOWN SOUTH ELMIRA AV	Rehab	Non-Paved	5.96	12.5	B	\$925	\$119,114	867	0	867	126,984	1.067	148
RV07-6386	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	915 S EL MIRA AVE	Rehab	Paved	8.05	22.5	B	\$1,075	\$120,189	1,080	0	1,080	128,064	0.995	149
RV07-6387	Replace Cover/Frame/Frame Seal & Grout Lower 18" (Paved or Non-Paved)	Unknown S EL MIRA AVE	Rehab	Paved	8.23	24.5	B	\$1,375	\$121,564	173	288	461	128,524	2.984	150
RV07-6388	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1200 ELMIRA AVE	Rehab	Paved	0.00	22.5	B	\$1,075	\$122,639	3,173	0	3,173	131,697	0.339	151
RV07-6392	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	2700 E 16TH ST	Rehab	Non-Paved	9.73	14.5	B	\$925	\$123,564	1,008	0	1,008	132,705	0.918	152
RV07-6394	Grout Lower 18" of Manhole	1525 E 13TH ST	Poured	Non-Paved	5.55	11.5	B	\$300	\$123,864	0	317	317	133,022	0.947	153
RV07-6396	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1519 E 14TH ST	Poured	Non-Paved	5.66	14.5	B	\$925	\$124,789	720	0	720	133,742	1.285	154
RV07-6427	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	803 S LOUISVILLE AVE	Precast	Non-Paved	5.55	14.5	B	\$925	\$125,714	720	0	720	134,462	1.285	155
RV07-6433	Replace Cover/Frame/Frame Seal & Seal Wall (Concrete) (Paved or Non-Paved)	1506 S UTICA AVE	Rehab	Paved	8.43	12.5	B	\$2,118	\$127,832	2,123	360	2,483	136,944	0.853	156
RV07-6434	Replace Cover/Frame/Frame Seal & Seal Wall (Concrete) (Paved or Non-Paved)	1700 S ROCHESTER AVE	Poured	Non-Paved	4.78	13.5	B	\$1,503	\$129,335	72	360	432	137,376	3.479	157
RV07-6435	Complete Manhole Rehab w/o New Frame and Cover (Paved or Non-Paved)	1018 E 16 ST	Rehab	Non-Paved	6.13	14.0	B	\$1,588	\$130,923	504	1,397	1,901	139,277	0.835	158
RV07-6436	Seal Wall Only (Concrete)	1018 E 16th ST	Poured	Non-Paved	10.42	21.5	B	\$1,042	\$131,965	0	677	677	139,954	1.540	159
RV07-6441	Grout Lower 18" of Manhole	1600 E 16TH 16 ST	Poured	Non-Paved	6.72	14.0	B	\$300	\$132,265	0	1,037	1,037	140,991	0.289	160
RV07-6462	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1616 16TH ST	Poured	Non-Paved	5.71	14.5	B	\$925	\$133,190	720	0	720	141,711	1.285	161
RV07-6464	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1558 E 16th ST	None	Non-Paved	4.62	9.5	A	\$925	\$134,115	867	0	867	142,578	1.067	162
RV07-6467	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1500 E 16TH	Poured	Non-Paved	11.62			\$925	\$135,040	720	0	720	143,298	1.285	163
RV07-6469	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1500 QUINCY	Poured	Non-Paved	10.83			\$925	\$135,965	720	0	720	144,018	1.285	164
RV07-6470	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1616 E 16 ST	Poured	Non-Paved	4.61	12.5	B	\$925	\$136,890	1,080	0	1,080	145,098	0.856	165
RV07-6482	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1527 OSWEGO	Poured	Non-Paved	5.74	14.5	B	\$925	\$137,815	720	0	720	145,818	1.285	166

Manhole	Repair Description	Street Address	Construction	Surface	Depth	Rating	Grade	Repair Cost	Cummulative Repair Cost	Inflow (GPD)	Infilt (GPD)	Flow (GPD)	Cummulative Flow (GPD)	Ratio (\$/GPD)	Count
RV07-6488	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	908 PITTSBURG	Poured	Non-Paved	9.14	19.5	B	\$925	\$138,740	720	0	720	146,538	1.285	167
RV14-1005	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1017 W B ST	Rehab	Paved	4.41	9.5	A	\$1,075	\$139,815	288	0	288	146,826	3.733	168
RV14-1008	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	Unknown W PARKWAY	Rehab	Non-Paved	7.29	17.5	B	\$925	\$140,740	1,226	0	1,226	148,052	0.754	169
RV14-1009	Replace Cover/Frame/Frame Seal & Grout Lower 18" (Paved or Non-Paved)	1020 W E ST	Rehab	Non-Paved	7.49	23.5	B	\$1,225	\$141,965	1,008	1,037	2,045	150,097	0.599	170
RV14-1012	Replace Cover/Frame/Frame Seal & Coat Manhole (Brick) (Paved or Non-Paved)	UNKNOWN W PARKWAY DR	Brick	Non-Paved	7.91	25.0	B	\$2,907	\$144,872	576	1,714	2,290	152,386	1.270	171
RV14-1013	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1010 W E ST	Rehab	Paved	8.42	12.5	B	\$1,075	\$145,947	288	0	288	152,674	3.733	172
RV14-1014	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	900 W E ST	Rehab	Paved	8.10	12.5	B	\$1,075	\$147,022	288	0	288	152,962	3.733	173
RV14-1015	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	500 N HOUSTON AVE	Rehab	Paved	4.51	12.5	B	\$1,075	\$148,097	288	0	288	153,250	3.733	174
RV14-1022	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	unknown W C ST	Rehab	Non-Paved	10.58	19.5	B	\$925	\$149,022	245	0	245	153,495	3.779	175
RV14-1024	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1100 W C ST	Poured	Paved	5.42	24.5	B	\$1,075	\$150,097	1,008	0	1,008	154,503	1.066	176
RV14-1026	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	902 W C ST	None	Paved	2.96	9.5	A	\$1,075	\$151,172	288	0	288	154,791	3.733	177
RV14-1030	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1200 W C ST	Rehab	Non-Paved	9.69	19.5	B	\$925	\$152,097	792	0	792	155,583	1.168	178
RV14-1031	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1301 W C ST	Rehab	Non-Paved	8.65	24.5	B	\$925	\$153,022	720	0	720	156,303	1.285	179
RV14-1032	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1301 W C ST	Rehab	Paved	6.03	22.5	B	\$1,075	\$154,097	288	0	288	156,591	3.733	180
RV14-1033	Replace Cover/Frame/Frame Seal & Grout Lower 18" (Paved or Non-Paved)	1401 W C ST	Rehab	Non-Paved	8.90	15.5	B	\$1,225	\$155,322	288	1,440	1,728	158,319	0.709	181
RV14-1033b	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1100 W C ST.	Poured	Non-Paved	10.52	29.5	B	\$925	\$156,247	7,272	0	7,272	165,591	0.127	182
RV14-1034	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1411 W C ST	Rehab	Paved	5.21	21.5	B	\$1,075	\$157,322	288	0	288	165,879	3.733	183
RV14-1035	Replace Cover/Frame/Frame Seal & Grout Lower 18" (Paved or Non-Paved)	302 N PHOENIX AVE	Rehab	Non-Paved	11.24	26.5	B	\$1,225	\$158,547	1,008	1,037	2,045	167,924	0.599	184
RV14-1036	Replace Cover/Frame/Frame Seal & Seal Wall (Concrete) (Paved or Non-Paved)	1500 W C ST	Rehab	Paved	6.66	27.5	B	\$1,941	\$160,488	1,008	1,397	2,405	170,329	0.807	185
RV14-1038	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	450 N PHOENIX AVE	Rehab	Paved	13.62	24.5	B	\$1,075	\$161,563	1,008	0	1,008	171,337	1.066	186
RV14-1039	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	UNKNOWN PHOENIX	Not Visible	Non-Paved	4.73	39.0	C	\$925	\$162,488	720	0	720	172,057	1.285	187
RV14-1040	Compete Manhole Rehab w/ New Frame and Cover (Paved or Non-Paved)	450 PHOENIX AVE	Rehab	Non-Paved	8.94	17.5	B	\$2,119	\$164,607	1,512	360	1,872	173,929	1.132	188
RV14-1042	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	428 N TULSA	Rehab	Non-Paved	11.87	21.5	B	\$925	\$165,532	288	0	288	174,217	3.212	189
RV14-1043	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	421 N TULSA	Rehab	Non-Paved	5.29	9.5	A	\$925	\$166,457	792	0	792	175,009	1.168	190
RV14-1044	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1708 W C PL	Rehab	Paved	10.50	27.5	B	\$1,075	\$167,532	288	0	288	175,297	3.733	191
RV14-1045	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1720 W C PL	Rehab	Paved	8.34	24.5	B	\$1,075	\$168,607	1,008	0	1,008	176,305	1.066	192
RV14-1046	Replace Cover/Frame/Frame Seal & Seal Wall (Concrete) (Paved or Non-Paved)	1800 W C PL	Rehab	Paved	7.94	22.5	B	\$2,069	\$170,676	461	144	605	176,910	3.421	193
RV14-1047	Replace Cover/Frame/Frame Seal & Coat Manhole (Brick) (Paved or Non-Paved)	1800 W C PL	Brick	Paved	4.81	21.5	B	\$2,537	\$173,213	288	360	648	177,558	3.915	194
RV14-1050	Replace Cover/Frame/Frame Seal & Seal Wall (Concrete) (Paved or Non-Paved)	900 W B ST	Rehab	Paved	3.25	47.5	C	\$1,600	\$174,813	5,691	360	6,051	183,609	0.264	195
RV14-1051	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	915 W B ST	None	Paved	3.97	11.5	B	\$1,075	\$175,888	720	0	720	184,329	1.493	196
RV14-1052	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1000 W B ST	Rehab	Paved	8.81	13.5	B	\$1,075	\$176,963	720	0	720	185,049	1.493	197
RV14-1054	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	100 N KEOKUCK AVE	Rehab	Paved	4.85	24.5	B	\$1,075	\$178,038	7,200	0	7,200	192,249	0.149	198
RV14-1056	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	808 S BOULDER	Precast	Non-Paved	2.89	14.5	B	\$925	\$178,963	720	0	720	192,969	1.285	199
RV14-1058	Replace Cover/Frame/Frame Seal & Grout Lower 18" (Paved or Non-Paved)	1300 W B ST	Rehab	Paved	5.61	20.5	B	\$1,375	\$180,338	2,448	1,037	3,485	196,454	0.395	200
RV14-1059	Replace Cover/Frame/Frame Seal & Seal Wall (Concrete) (Paved or Non-Paved)	1302 W B ST	Rehab	Paved	6.02	21.5	B	\$1,877	\$182,215	288	1,397	1,685	198,138	1.114	201
RV14-1060	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1400 W B ST	Rehab	Paved	5.83	12.5	B	\$1,075	\$183,290	288	0	288	198,426	3.733	202
RV14-1061	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1412 W B ST	Rehab	Paved	5.40	12.5	B	\$1,075	\$184,365	288	0	288	198,714	3.733	203
RV14-1062	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	201 N PHOENIX AVE	Rehab	Paved	6.72	12.5	B	\$1,075	\$185,440	72	0	72	198,786	14.931	204
RV14-1063	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1700 W B ST	Rehab	Paved	8.61	12.5	B	\$1,075	\$186,515	288	0	288	199,074	3.733	205
RV14-1063A	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1808 W MAIN ST	Precast	Paved	11.57	19.0	B	\$1,075	\$187,590	720	0	720	199,794	1.493	206
RV14-1069	Replace Cover/Frame/Frame Seal & Seal Wall (Concrete) (Paved or Non-Paved)	914 W MAIN ST	Rehab	Non-Paved	8.21	26.5	B	\$1,846	\$189,436	1,008	360	1,368	201,162	1.349	207
RV14-1070	Replace Cover/Frame/Frame Seal & Coat Manhole (Brick) (Paved or Non-Paved)	1022 W MAIN ST	Brick	Paved	6.21	39.5	C	\$2,817	\$192,253	16,500	677	17,176	218,339	0.164	208
RV14-1073	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1407 W MAIN ST	Rehab	Paved	5.28	13.5	B	\$1,075	\$193,328	867	0	867	219,206	1.240	209

Manhole	Repair Description	Street Address	Construction	Surface	Depth	Rating	Grade	Repair Cost	Cummulative Repair Cost	Inflow (GPD)	Infilt (GPD)	Flow (GPD)	Cummulative Flow (GPD)	Ratio (\$/GPD)	Count
RV14-1075	Seal Corbel & Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1713 W MAIN ST	None	Paved	3.60	11.5	B	\$1,575	\$194,903	1,800	0	1,800	221,006	0.875	210
RV14-1076	Compete Manhole Rehab w/ New Frame and Cover (Paved or Non-Paved)	1808 W MAIN	None	Paved	3.74	11.5	B	\$1,749	\$196,652	1,224	317	1,541	222,547	1.135	211
RV14-1078	Compete Manhole Rehab w/ New Frame and Cover (Paved or Non-Paved)	UNKNOWN W 2ND ST	None	Paved	3.58	21.5	B	\$1,733	\$198,385	1,224	317	1,541	224,088	1.125	212
RV14-1079	Replace Cover/Frame/Frame Seal & Coat Manhole (Brick) (Paved or Non-Paved)	805 W 2ND ST	Brick	Paved	4.25	17.5	B	\$2,425	\$200,810	288	360	648	224,736	3.742	213
RV14-1080	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	814 W 2ND ST	None	Paved	3.94	12.5	B	\$1,075	\$201,885	3,888	0	3,888	228,624	0.276	214
RV14-1083	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	224 S INDEPENDENCE AV	None	Paved	4.40	19.5	B	\$1,075	\$202,960	288	0	288	228,912	3.733	215
RV14-1084	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	100 S LOREDO AVE	Rehab	Paved	10.42	17.5	B	\$1,075	\$204,035	288	0	288	229,200	3.733	216
RV14-1085	Compete Manhole Rehab w/ New Frame and Cover (Paved or Non-Paved)	1201 W MAIN ST	Rehab	Non-Paved	9.75	20.5	B	\$2,200	\$206,235	2,232	360	2,592	231,792	0.849	217
RV14-1086	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	100 S LAREDO AVE	Rehab	Paved	7.81	12.5	B	\$1,075	\$207,310	288	0	288	232,080	3.733	218
RV14-1087	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1200 W 2nd ST	Rehab	Paved	7.21	17.5	B	\$1,075	\$208,385	288	0	288	232,368	3.733	219
RV14-1091	Replace Cover/Frame/Frame Seal & Coat Manhole (Brick) (Paved or Non-Paved)	1400 W 2ND ST	Brick	Non-Paved	5.62	18.5	B	\$2,449	\$210,834	576	360	936	233,304	2.616	220
RV14-1092	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	UNKNOWN OMAHA	Poured	Non-Paved	7.54	12.5	B	\$925	\$211,759	288	0	288	233,592	3.212	221
RV14-1093	Replace Cover/Frame/Frame Seal & Coat Manhole (Brick) (Paved or Non-Paved)	212 S OMAHA AVE	Brick	Paved	4.04	31.5	C	\$2,383	\$214,142	15,852	360	16,212	249,804	0.147	222
RV14-1094	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1601 W 2ND ST	Rehab	Paved	8.19	24.5	B	\$1,075	\$215,217	8,067	0	8,067	257,871	0.133	223
RV14-1095	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	200 S PHOENIX AVE	Rehab	Paved	12.50	19.5	B	\$1,075	\$216,292	720	0	720	258,591	1.493	224
RV14-1096	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1600 W 2ND ST	Rehab	Paved	12.04	24.5	B	\$1,075	\$217,367	1,008	0	1,008	259,599	1.066	225
RV14-1097	Replace Cover/Frame/Frame Seal & Seal Wall (Concrete) (Paved or Non-Paved)	1603 W 2nd ST	Rehab	Paved	14.35	19.5	B	\$2,710	\$220,077	288	144	432	260,031	6.273	226
RV14-1098	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1703 W 2ND ST	Rehab	Paved	5.30	13.5	B	\$1,075	\$221,152	288	0	288	260,319	3.733	227
RV14-1099	Replace Cover/Frame/Frame Seal & Grout Lower 18" (Paved or Non-Paved)	1800 W 2nd ST	Rehab	Paved	16.04	24.5	B	\$1,375	\$222,527	288	1,037	1,325	261,644	1.038	228
RV14-1103	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1900 S VANCOUVER	Rehab	Non-Paved	10.24	20.5	B	\$925	\$223,452	792	0	792	262,436	1.168	229
RV14-1104	Replace Cover/Frame/Frame Seal & Seal Wall (Concrete) (Paved or Non-Paved)	1902 S VANCOUVER	Rehab	Non-Paved	11.02	15.5	B	\$2,127	\$225,579	72	360	432	262,868	4.924	230
RV14-1105	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	Unknown S VANCOUVER	Rehab	Non-Paved	13.79	17.5	B	\$925	\$226,504	288	0	288	263,156	3.212	231
RV14-1106	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	150 S VANCOUVER	Rehab	Paved	16.61	17.5	B	\$1,075	\$227,579	288	0	288	263,444	3.733	232
RV14-1108	Coat Manhole and Grout Lower 18" of Manhole (Brick/Block)	210 S PHOENIX AVE	Brick	Paved	4.25	18.5	B	\$725	\$228,304	0	360	360	263,804	2.014	233
RV14-1109	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1700 W 2ND PL	Poured	Paved	3.42	26.5	B	\$1,075	\$229,379	1,008	0	1,008	264,812	1.066	234
RV14-1110	Replace Cover/Frame/Frame Seal & Grout Lower 18" (Paved or Non-Paved)	200 W 2ND PL	Rehab	Paved	3.32	16.0	B	\$1,375	\$230,754	288	1,037	1,325	266,137	1.038	235
RV14-1111	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1900 W 2ND	Block	Non-Paved	2.60	28.0	B	\$925	\$231,679	576	0	576	266,713	1.606	236
RV14-1112	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1900 W 2ND	Rehab	Non-Paved	4.39	12.5	B	\$925	\$232,604	72	0	72	266,785	12.847	237
RV14-1113	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	2010 W 2ND	Rehab	Non-Paved	4.72	12.5	B	\$925	\$233,529	72	0	72	266,857	12.847	238
RV14-1114	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	2010 W 2ND PL	Rehab	Non-Paved	7.54	14.5	B	\$925	\$234,454	792	0	792	267,649	1.168	239
RV14-1115	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	2020 W 2ND PL	Rehab	Non-Paved	4.44	14.5	B	\$925	\$235,379	792	0	792	268,441	1.168	240
RV14-1115A	Compete Manhole Rehab w/ New Frame and Cover (Paved or Non-Paved)	205 S UTAH AVE	Rehab	Paved	7.76	17.0	B	\$2,151	\$237,530	288	677	965	269,405	2.229	241
RV14-1116	Compete Manhole Rehab w/ New Frame and Cover (Paved or Non-Paved)	215 S SEATTLE AVE	Block	Paved	6.31	44.5	C	\$2,006	\$239,536	15,273	0	15,273	284,679	0.131	242
RV14-1118	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	200 S LAREDO AV	Rehab	Paved	8.47	20.5	B	\$1,075	\$240,611	1,080	360	1,440	286,119	0.747	243
RV14-1119	Compete Manhole Rehab w/ New Frame and Cover (Paved or Non-Paved)	1300 W 2nd PL	Rehab	Paved	9.00	7.5	A	\$2,275	\$242,886	792	360	1,152	287,271	1.975	244
RV14-1120	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1300 W 2ND PL	Rehab	Paved	3.12	12.5	B	\$1,075	\$243,961	288	0	288	287,559	3.733	245
RV14-1121	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1122 BRADLEY LN	Rehab	Paved	10.21	31.5	C	\$1,075	\$245,036	1,728	0	1,728	289,287	0.622	246
RV14-1123	Replace Cover/Frame/Frame Seal & Grout Lower 18" (Paved or Non-Paved)	216 S OMAHA AVE	Block	Paved	3.43	34.5	C	\$1,375	\$246,411	9,176	1,037	10,213	299,499	0.135	247
RV14-1126	Install Bolts/Gasket for Bolted Cover	226 S RENO AVE	None	Paved	4.14	11.0	B	\$70	\$246,481	1,440	0	1,440	300,939	0.049	248
RV14-1145	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	38 S INDEPENDENCE	None	Paved	3.76	9.5	A	\$1,075	\$247,556	288	0	288	301,227	3.733	249
RV14-1146	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	303 S HOUSTON PL	None	Paved	2.33	9.5	A	\$1,075	\$248,631	288	0	288	301,515	3.733	250
RV14-1146A	Grout Lower 18" of Manhole	806 W 3rd ST	None	Paved	3.30	9.5	A	\$300	\$248,931	0	317	317	301,832	0.947	251
RV14-1147	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	300 SECTION GLENWOOD AV	None	Paved	3.69	9.5	A	\$1,075	\$250,006	288	0	288	302,120	3.733	252

Manhole	Repair Description	Street Address	Construction	Surface	Depth	Rating	Grade	Repair Cost	Cummulative Repair Cost	Inflow (GPD)	Infilt (GPD)	Flow (GPD)	Cummulative Flow (GPD)	Ratio (\$/GPD)	Count
RV14-1148	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	319 S GLENWOOD AV	None	Paved	3.56	10.5	B	\$1,075	\$251,081	288	0	288	302,408	3.733	253
RV14-1149	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	321 S HOUSTON PL	None	Paved	3.05	10.5	B	\$1,075	\$252,156	288	0	288	302,696	3.733	254
RV14-1150	Replace Cover/Frame/Frame Seal & Grout Lower 18" (Paved or Non-Paved)	314 S INDEPENDENCE AV	Rehab	Paved	4.44	14.5	B	\$1,375	\$253,531	576	317	893	303,589	1.540	255
RV14-1153	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	329 S GLENWOOD AV	Rehab	Paved	3.76	11.5	B	\$1,075	\$254,606	1,296	0	1,296	304,885	0.829	256
RV14-1154	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	408 S GLENWOOD AVE	Rehab	Paved	2.44	9.5	A	\$1,075	\$255,681	576	0	576	305,461	1.866	257
RV14-1155	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	322 S HOUSTON AV	Rehab	Paved	2.44	11.5	B	\$1,075	\$256,756	1,008	0	1,008	306,469	1.066	258
RV14-1156	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	322 S HOUSTON PL	Rehab	Paved	2.20	9.5	A	\$1,075	\$257,831	288	0	288	306,757	3.733	259
RV14-1157	Replace Cover/Frame/Frame Seal & Grout Lower 18" (Paved or Non-Paved)	326 S INDEPENDANCE AVE	Rehab	Paved	2.01	11.5	B	\$1,375	\$259,206	576	317	893	307,650	1.540	260
RV14-1158	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	800 W 4TH ST	Rehab	Paved	2.02	11.5	B	\$1,075	\$260,281	1,296	0	1,296	308,946	0.829	261
RV14-1161	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	420 S GLENWOOD AV	Rehab	Paved	3.71	12.5	B	\$1,075	\$261,356	576	0	576	309,522	1.866	262
RV14-1213	Replace Cover/Frame/Frame Seal & Grout Lower 18" (Paved or Non-Paved)	UNKNOWN W 5th AV	Rehab	Non-Paved	4.98	14.5	B	\$1,225	\$262,581	288	317	605	310,127	2.025	263
RV14-1213A	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	CITY PARK HOUSTON AND 4TH	Rehab	Non-Paved	4.40	23.5	B	\$925	\$263,506	4,394	0	4,394	314,521	0.210	264
RV14-1218	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	500 S GLENWOOD AVE	Rehab	Paved	4.12	14.5	B	\$1,075	\$264,581	173	0	173	314,694	6.221	265
RV14-1220	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	512 S GLENWOOD AV	Rehab	Paved	6.35	24.5	B	\$1,075	\$265,656	2,448	0	2,448	317,142	0.439	266
RV14-1227	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	600 S GLENWOOD AV	Rehab	Paved	4.89	12.5	B	\$1,075	\$266,731	288	0	288	317,430	3.733	267
RV14-1228	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	504 W 7TH ST	Rehab	Paved	4.86	12.5	B	\$1,075	\$267,806	288	0	288	317,718	3.733	268
RV14-1299	Coat Manhole and Grout Lower 18" of Manhole (Brick/Block)	219 S PHOENIX AVE	None	Paved	3.90	16.0	B	\$690	\$268,496	504	0	504	318,222	1.369	269
RV14-1300	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1611 BRADLEY LN	Rehab	Paved	5.55	10.5	B	\$1,075	\$269,571	792	0	792	319,014	1.357	270
RV14-1301	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1807 BRADLEY LN	Rehab	Paved	6.49	14.5	B	\$1,075	\$270,646	1,008	0	1,008	320,022	1.066	271
RV14-1302	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1820 BRADLEY LN	Rehab	Paved	6.80	14.5	B	\$1,075	\$271,721	1,008	0	1,008	321,030	1.066	272
RV14-1307	Seal Corbel Only (Concrete)	309 W 3RD CT	None	Paved	3.30	6.5	A	\$500	\$272,221	504	0	504	321,534	0.992	273
RV14-1308	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1701 S QUANAH AVE	Rehab	Paved	4.05	12.5	B	\$1,075	\$273,296	288	0	288	321,822	3.733	274
RV14-1308A	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1811 W 3RD CT	Rehab	Non-Paved	6.03	14.5	B	\$925	\$274,221	1,008	0	1,008	322,830	0.918	275
RV14-1309	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1819 W 3RD ST	Rehab	Paved	5.27	12.5	B	\$1,075	\$275,296	288	0	288	323,118	3.733	276
RV14-1310	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1920 W 3RD ST	Rehab	Non-Paved	9.64	12.5	B	\$925	\$276,221	288	0	288	323,406	3.212	277
RV14-1312	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1901 W 3RD CT	Rehab	Paved	7.94	12.5	B	\$1,075	\$277,296	288	0	288	323,694	3.733	278
RV14-1313	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	2001 W 3RD CT	None	Paved	3.30	15.5	B	\$1,075	\$278,371	4,248	0	4,248	327,942	0.253	279
RV14-1323	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	2220 W 2ND PL	Rehab	Non-Paved	6.38	12.5	B	\$925	\$279,296	576	0	576	328,518	1.606	280
RV14-1324	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	233 S ARLINGTON AVE	Rehab	Non-Paved	4.71	12.5	B	\$925	\$280,221	72	0	72	328,590	12.847	281
RV14-1325	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	237 S ARLINGTON AVE	Rehab	Non-Paved	6.70	14.5	B	\$925	\$281,146	792	0	792	329,382	1.168	282
RV14-1326	Replace Cover/Frame/Frame Seal & Grout Lower 18" (Paved or Non-Paved)	2500 BRADLEY LN	None	Paved	4.34	14.5	B	\$1,375	\$282,521	245	317	562	329,943	2.448	283
RV14-1327	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	2505 BRADLEY LN	Rehab	Non-Paved	4.26	9.5	A	\$925	\$283,446	792	0	792	330,735	1.168	284
RV14-1328	Replace Cover/Frame/Frame Seal & Grout Lower 18" (Paved or Non-Paved)	2511 BRADLEY LN	Rehab	Non-Paved	4.90	22.5	B	\$1,225	\$284,671	288	317	605	331,340	2.025	285
RV14-1330	Compete Manhole Rehab w/ New Frame and Cover (Paved or Non-Paved)	2615 BRADLEY LN	Poured	Non-Paved	5.79	16.5	B	\$1,804	\$286,475	288	1,714	2,002	333,342	0.901	286
RV14-1472	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1705 BRADLEY LN	Rehab	Non-Paved	206.00	14.5	B	\$925	\$287,400	288	0	288	333,630	3.212	287
RV14-1516	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	413 W 6TH ST	Rehab	Paved	2.14	15.5	B	\$1,075	\$288,475	2,160	0	2,160	335,790	0.498	288
RV14-1517	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	613 S DENVER AVE	None	Paved	2.24	12.5	B	\$1,075	\$289,550	720	0	720	336,510	1.493	289
RV14-1529	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	800 S DENVER AVE	Rehab	Paved	4.89	21.5	B	\$1,075	\$290,625	720	0	720	337,230	1.493	290
RV14-1530	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	219 W 8th ST	None	Paved	6.16	15.5	B	\$1,075	\$291,700	720	0	720	337,950	1.493	291
RV14-1532	Replace Cover/Frame/Frame Seal & Coat Manhole (Brick) (Paved or Non-Paved)	114 W 8th ST	Brick	Paved	2.10	17.5	B	\$1,995	\$293,695	864	360	1,224	339,174	1.630	292
RV14-1533	Coat Manhole and Grout Lower 18" of Manhole (Brick/Block)	802 S BOULDER AVE	None	Paved	3.66	8.5	A	\$666	\$294,361	504	288	792	339,966	0.841	293
RV14-1534	Replace Cover/Frame/Frame Seal & Grout Lower 18" (Paved or Non-Paved)	902 S BOULDER AVE	Rehab	Paved	3.68	26.0	B	\$1,375	\$295,736	1,008	317	1,325	341,291	1.038	294
RV14-1831	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	903 W MAIN ST	Rehab	Paved	4.14	16.5	B	\$1,075	\$296,811	2,448	0	2,448	343,739	0.439	295

Manhole	Repair Description	Street Address	Construction	Surface	Depth	Rating	Grade	Repair Cost	Cummulative Repair Cost	Inflow (GPD)	Infilt (GPD)	Flow (GPD)	Cummulative Flow (GPD)	Ratio (\$/GPD)	Count
RV14-1832	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	814 W 2ND ST	Poured	Non-Paved	3.76	9.5	A	\$925	\$297,736	792	0	792	344,531	1.168	296
RV14-2009	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	908 W B ST	Precast	Paved	0.00	5.0	A	\$1,075	\$298,811	720	0	720	345,251	1.493	297
RV14-2011	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	UNKNOWN S OMAHA AVE	None	Non-Paved	4.24	4.5	A	\$925	\$299,736	720	0	720	345,971	1.285	298
RV14-2063	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1250 W 2ND PL	None	Non-Paved	0.00	9.0	A	\$925	\$300,661	1,541	0	1,541	347,511	0.600	299
RV14-2148	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	238 S CUMBERLAND AVE	Rehab	Non-Paved	4.50	14.5	B	\$925	\$301,586	1,008	0	1,008	348,519	0.918	300
RV14-2309	Seal Wall Only (Concrete)	102 S RENO	Poured	Non-Paved	12.48	13.5	B	\$1,248	\$302,834	0	144	144	348,663	8.667	301
RV14-2310	Grout Lower 18" of Manhole	102 S RENO AVE	Poured	Non-Paved	0.00	12.5	B	\$300	\$303,134	0	144	144	348,807	2.083	302
RV14-2807	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1701 W 3RD PL	Rehab	Paved	3.76	11.5	B	\$1,075	\$304,209	288	0	288	349,095	3.733	303
RV14-2807A	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1812 W 3RD PL	Precast	Paved	0.00	17.0	B	\$1,075	\$305,284	7,200	0	7,200	356,295	0.149	304
RV14-2822	Seal Wall Only (Concrete)	1200 W B ST	Rehab	Non-Paved	8.34	24.0	B	\$834	\$306,118	0	1,397	1,397	357,692	0.597	305
RV14-2824	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	800 W B ST	Rehab	Paved	3.38	11.5	B	\$1,075	\$307,193	461	0	461	358,153	2.333	306
RV14-2828	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	308 S INDEPENDENCE	Poured	Paved	2.99	11.5	B	\$1,075	\$308,268	288	0	288	358,441	3.733	307
RV14-2830	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	650 W 6TH ST	None	Paved	3.81	9.5	A	\$1,075	\$309,343	288	0	288	358,729	3.733	308
RV14-2833	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	416 W 8TH ST	Rehab	Paved	5.10	12.5	B	\$1,075	\$310,418	288	0	288	359,017	3.733	309
RV14-2846	Compete Manhole Rehab w/ New Frame and Cover (Paved or Non-Paved)	1814 W 2ND ST	Rehab	Paved	5.19	23.0	B	\$1,894	\$312,312	792	1,354	2,146	361,163	0.883	310
RV14-2848	Seal Wall Only (Concrete)	UNKNOWN 2ND	Rehab	Non-Paved	7.53	8.5	A	\$753	\$313,065	0	288	288	361,451	2.615	311
RV14-2849	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1501 BRADLEY LN	Rehab	Paved	3.94	12.5	B	\$1,075	\$314,140	288	0	288	361,739	3.733	312
RV14-2850	Replace Cover/Frame/Frame Seal & Seal Wall (Concrete) (Paved or Non-Paved)	1501 W 3RD ST	Rehab	Paved	3.83	9.5	A	\$1,658	\$315,798	1,008	360	1,368	363,107	1.212	313
RV14-2851	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1400 W 2ND ST	Poured	Non-Paved	5.90	11.0	B	\$925	\$316,723	720	0	720	363,827	1.285	314
RV14-2852	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	1901 W 3RD PL	Rehab	Paved	4.80	12.5	B	\$1,075	\$317,798	288	0	288	364,115	3.733	315
RV14-3396	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	2506 W 2ND LN	Rehab	Non-Paved	7.10	27.5	B	\$925	\$318,723	792	0	792	364,907	1.168	316
RV23-1002	Replace Cover/Frame/Frame Seal & Coat Manhole (Brick) (Paved or Non-Paved)	301 EL PASO	Brick	Paved	7.54	20.5	B	\$3,083	\$321,806	1,512	360	1,872	366,779	1.647	317
RV23-1018	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	301 EL PASO	Precast	Non-Paved	7.04	14.5	B	\$925	\$322,731	720	0	720	367,499	1.285	318
RV23-1019	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	301 EL PASO	Poured	Non-Paved	4.80	12.5	B	\$925	\$323,656	720	0	720	368,219	1.285	319
RV23-1020	Compete Manhole Rehab w/ New Frame and Cover (Paved or Non-Paved)	301 EL PASO	Brick	Paved	6.01	26.0	B	\$1,976	\$325,632	1,224	360	1,584	369,803	1.247	320
RV23-1027	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	807 W C ST	Rehab	Paved	4.52	11.5	B	\$1,075	\$326,707	576	0	576	370,379	1.866	321
RV23-1048	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	500 W B ST	Rehab	Paved	3.85	18.5	B	\$1,075	\$327,782	3,171	0	3,171	373,549	0.339	322
RV23-1065	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	6002 W MAIN ST	None	Paved	4.93	50.5	D	\$1,075	\$328,857	3,171	0	3,171	376,720	0.339	323
RV23-1066	Seal Corbel & Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	700 W MAIN ST	None	Paved	4.65	27.5	B	\$1,575	\$330,432	2,602	0	2,602	379,322	0.605	324
RV23-1077	Coat Manhole and Grout Lower 18" of Manhole (Brick/Block)	115 S FARGO	Brick	Paved	4.49	15.5	B	\$749	\$331,181	0	360	360	379,682	2.081	325
RV23-1473	Seal Wall Only (Concrete)	501 W 4TH ST	Rehab	Paved	2.56	6.0	A	\$256	\$331,437	0	360	360	380,042	0.711	326
RV23-1474	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	505 W 3RD PL	None	Paved	4.90	9.5	A	\$1,075	\$332,512	288	0	288	380,330	3.733	327
RV23-1475	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	UNKNOWN S EL PASO AVE	None	Paved	4.34	11.5	B	\$1,075	\$333,587	1,440	0	1,440	381,770	0.747	328
RV23-1476	Compete Manhole Rehab w/ New Frame and Cover (Paved or Non-Paved)	UNKNOWN EL PASO	Brick	Paved	4.24	26.5	B	\$1,799	\$335,386	720	677	1,397	383,167	1.288	329
RV23-1477	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	511 W MAIN ST	Precast	Paved	0.00			\$1,075	\$336,461	720	0	720	383,887	1.493	330
RV23-1483	Replace Cover/Frame/Frame Seal & Coat Manhole (Brick) (Paved or Non-Paved)	UNKNOWN W PARKWAY DR	Brick	Paved	9.62	25.0	B	\$3,499	\$339,960	1,371	360	1,731	385,618	2.022	331
RV23-1486	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	412 W PARKWAY DR	Poured	Non-Paved	5.50	21.5	B	\$925	\$340,885	720	0	720	386,338	1.285	332
RV23-1487	Compete Manhole Rehab w/ New Frame and Cover (Paved or Non-Paved)	UNKNOWN W PARKWAY DR	None	Paved	4.05	14.5	B	\$1,780	\$342,665	3,456	317	3,773	390,111	0.472	333
RV23-1488	Seal Corbel & Replace Frame Seal (Paved or Non-Paved)	UNKNOWN W PARKWAY	None	Paved	4.58	18.5	B	\$1,325	\$343,990	1,224	0	1,224	391,335	1.083	334
RV23-1489	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	307 W C ST	Rehab	Paved	3.06	11.5	B	\$1,075	\$345,065	720	0	720	392,055	1.493	335
RV23-1492	Seal Corbel & Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	115 S DENVER AVE	None	Paved	4.81	28.5	B	\$1,575	\$346,640	2,956	0	2,956	395,011	0.533	336
RV23-1493	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	110 S COMMERCE AVE	Rehab	Paved	6.48	14.5	B	\$1,075	\$347,715	720	0	720	395,731	1.493	337
RV23-1494	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	111 S BOULDER AVE	Rehab	Paved	4.65	16.5	B	\$1,075	\$348,790	720	0	720	396,451	1.493	338

Manhole	Repair Description	Street Address	Construction	Surface	Depth	Rating	Grade	Repair Cost	Cummulative Repair Cost	Inflow (GPD)	Infilt (GPD)	Flow (GPD)	Cummulative Flow (GPD)	Ratio (\$/GPD)	Count
RV23-1496	Seal Corbel & Replace Frame Seal (Paved or Non-Paved)	115 S DENVER AVE	None	Paved	4.02	34.5	C	\$1,325	\$350,115	11,088	0	11,088	407,539	0.119	339
RV23-1497	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	122 S COMMERCE AVE	None	Paved	2.87	13.5	B	\$1,075	\$351,190	2,220	0	2,220	409,760	0.484	340
RV23-1498	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	201 W 2ND ST	None	Paved	3.60	17.5	B	\$1,075	\$352,265	1,587	0	1,587	411,347	0.677	341
RV23-1501	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	304 S DENVER AVE	None	Paved	4.58	15.5	B	\$1,075	\$353,340	720	0	720	412,067	1.493	342
RV23-1502	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	200 S COMMERCE AVE	None	Paved	3.13	21.5	B	\$1,075	\$354,415	8,067	0	8,067	420,133	0.133	343
RV23-1503	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	301 S BOULDER AVE	None	Paved	3.48	15.5	B	\$1,075	\$355,490	1,008	0	1,008	421,141	1.066	344
RV23-1504	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	320 S DENVER AVE	None	Paved	3.42	9.5	A	\$1,075	\$356,565	867	0	867	422,008	1.240	345
RV23-1505	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	318 S COMMERCE AVE	None	Paved	3.17	15.5	B	\$1,075	\$357,640	1,587	0	1,587	423,595	0.677	346
RV23-1507	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	210 S ARKANSAS AVE	Rehab	Paved	4.11	14.5	B	\$1,075	\$358,715	1,732	0	1,732	425,328	0.621	347
RV23-1508	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	318 S ARKANSAS AVE	Rehab	Paved	6.06	16.5	B	\$1,075	\$359,790	720	0	720	426,048	1.493	348
RV23-1509	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	400 S DENVER AVE	None	Paved	2.38	17.5	B	\$1,075	\$360,865	1,587	0	1,587	427,634	0.677	349
RV23-1510	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	400 S COMMERCE AVE	None	Paved	3.81	27.5	B	\$1,075	\$361,940	19,820	0	19,820	447,455	0.054	350
RV23-1511	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	325 S BOULDER AVE	Rehab	Paved	3.92	28.5	B	\$1,075	\$363,015	8,067	0	8,067	455,522	0.133	351
RV23-1512	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	501 S DENVER AVE	None	Paved	3.25	11.5	B	\$1,075	\$364,090	720	0	720	456,242	1.493	352
RV23-1513	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	413 S COMMERCE AVE	None	Paved	3.54	10.5	B	\$1,075	\$365,165	1,332	0	1,332	457,574	0.807	353
RV23-1514	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	421 S BOULDER AVE	Rehab	Paved	4.66	12.5	B	\$1,075	\$366,240	576	0	576	458,150	1.866	354
RV23-1515	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	514 S DENVER AVE	Rehab	Paved	4.96	26.5	B	\$1,075	\$367,315	7,920	0	7,920	466,070	0.136	355
RV23-1518	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	600 S COMMERCE AVE	Rehab	Paved	5.69	14.5	B	\$1,075	\$368,390	720	0	720	466,790	1.493	356
RV23-1519	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	509 S BOULDER AVE	Rehab	Paved	5.38	16.5	B	\$1,075	\$369,465	1,945	0	1,945	468,735	0.553	357
RV23-1520	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	119 W 6TH ST	Rehab	Paved	2.71	9.5	A	\$1,075	\$370,540	612	0	612	469,347	1.757	358
RV23-1521	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	422 S ARKANSAS AVE	Rehab	Paved	7.56	12.5	B	\$1,075	\$371,615	1,378	0	1,378	470,725	0.780	359
RV23-1522	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	517 S ARKANSAS AVE	Rehab	Paved	4.04	12.5	B	\$1,075	\$372,690	1,225	0	1,225	471,951	0.877	360
RV23-1523	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	702 S COMMERCE AVE	Rehab	Paved	4.13	14.5	B	\$1,075	\$373,765	1,008	0	1,008	472,959	1.066	361
RV23-1524	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	201 W 7TH ST	Rehab	Paved	6.39	13.5	B	\$1,075	\$374,840	1,225	0	1,225	474,184	0.877	362
RV23-1525	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	114 W 7TH ST	None	Paved	3.42	11.5	B	\$1,075	\$375,915	1,622	0	1,622	475,806	0.663	363
RV23-1526	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	700 S ARKANSAS AVE	None	Paved	4.76	12.5	B	\$1,075	\$376,990	2,016	0	2,016	477,822	0.533	364
RV23-1527	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	717 S ARKANSAS AVE	Rehab	Paved	4.32	11.0	B	\$1,075	\$378,065	1,734	0	1,734	479,557	0.620	365
RV23-1528	Compete Manhole Rehab w/ New Frame and Cover (Paved or Non-Paved)	710 S COMMERCE AVE	Rehab	Paved	3.79	21.0	B	\$1,754	\$379,819	11,235	0	11,235	490,792	0.156	366
RV23-1556	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	300 N COMMERCE AVE	None	Paved	4.44	17.5	B	\$1,075	\$380,894	4,035	0	4,035	494,827	0.266	367
RV23-1557	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	UNKNOWN N ARKANSAS AV	None	Paved	4.02	10.5	B	\$1,075	\$381,969	72	0	72	494,899	14.931	368
RV23-1558	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	UNKNOWN N ARKANSAS AV	None	Non-Paved	3.29	11.5	B	\$925	\$382,894	1,008	0	1,008	495,907	0.918	369
RV23-1559	Replace Cover/Frame/Frame Seal & Seal Wall (Concrete) (Paved or Non-Paved)	UNKNOWN N ARKANSAS AV	Rehab	Non-Paved	3.50	19.5	B	\$1,375	\$384,269	792	360	1,152	497,059	1.194	370
RV23-1560	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	201 N ARKANSAS	None	Paved	4.44	11.5	B	\$1,075	\$385,344	1,732	0	1,732	498,791	0.621	371
RV23-1562	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	212 N ARKANSAS AVE	Rehab	Paved	7.86	14.5	B	\$1,075	\$386,419	461	0	461	499,252	2.333	372
RV23-1563	Replace Cover/Frame/Frame Seal & Seal Wall (Concrete) (Paved or Non-Paved)	212 N ARKANSAS AVE	Rehab	Paved	8.15	11.5	B	\$2,090	\$388,509	867	144	1,011	500,263	2.068	373
RV23-1565	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	UNKNOWN ARKANSAS	None	Non-Paved	5.24	10.5	B	\$925	\$389,434	749	0	749	501,012	1.235	374
RV23-1569	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	110 N ARKANSAS AVE	Rehab	Paved	5.30	22.5	B	\$1,075	\$390,509	1,587	0	1,587	502,598	0.677	375
RV23-2109	Coat Manhole and Grout Lower 18" of Manhole (Brick/Block)	200 W MAIN	Poured	Paved	5.86	25.5	B	\$886	\$391,395	504	0	504	503,102	1.758	376
RV23-2167	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	111 BOULDER	None	Paved	4.62	16.5	B	\$1,075	\$392,470	792	0	792	503,894	1.357	377
RV23-2358	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	405 N EL PASO	Poured	Non-Paved	9.82	12.5	B	\$925	\$393,395	72	0	72	503,966	12.847	378
RV23-2827	Replace Cover/Frame/Frame Seal & Coat Manhole (Brick) (Paved or Non-Paved)	701 W MAIN ST	Brick	Paved	2.86	58.5	D	\$2,147	\$395,542	7,488	360	7,848	511,814	0.274	379
RV23-2855	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	708 W B ST	Rehab	Paved	4.33	9.5	A	\$1,075	\$396,617	576	0	576	512,390	1.866	380
RV23-2856	Replace Cover/Frame/Frame Seal & Coat Manhole (Brick) (Paved or Non-Paved)	500 W B ST	Brick	Paved	3.90	21.5	B	\$2,355	\$398,972	1,587	360	1,947	514,337	1.210	381

<u>Manhole</u>	<u>Repair Description</u>	<u>Street Address</u>	<u>Construction</u>	<u>Surface</u>	<u>Depth</u>	<u>Rating</u>	<u>Grade</u>	<u>Repair Cost</u>	<u>Cummulative Repair Cost</u>	<u>Inflow (GPD)</u>	<u>Infilt (GPD)</u>	<u>Flow (GPD)</u>	<u>Cummulative Flow (GPD)</u>	<u>Ratio (\$/GPD)</u>	<u>Count</u>
RV23-2857	Seal Corbel & Replace Frame Seal (Paved or Non-Paved)	201 N DENVER	Not Visible	Paved	2.45	9.5	A	\$1,325	\$400,297	1,224	0	1,224	515,561	1.083	382
RV23-2858	Seal Corbel & Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	311 W B ST	None	Non-Paved	2.84	13.0	B	\$1,425	\$401,722	1,836	0	1,836	517,397	0.776	383
RV23-2859	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	311 W B ST	Rehab	Paved	2.63	9.5	A	\$1,075	\$402,797	288	0	288	517,685	3.733	384
RV23-2859A	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	311 W B ST	Precast	Paved	1.72	11.5	B	\$1,075	\$403,872	720	0	720	518,405	1.493	385
RV23-2873	Replace Cover/Frame/Frame Seal (Paved or Non-Paved)	200 W E ST	Rehab	Non-Paved	6.58	16.5	B	\$925	\$404,797	720	0	720	519,125	1.285	386
Total Manhole		346													

APPENDIX G

**RECOMMENDED SERVICE LINE
INFLOW REMOVAL**



Service Line Inflow Removal

Project Number

18-2455-00

Russellville, Arkansas

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Repair			Cumulative	Cumulative
					Flow (GPD)	Cost (\$)	Ratio (\$/GPD)	Flow (GPD)	Cost (\$)
RV07 1056	RV07 1057	812A BOULDER	Inflow Cleanout	Repair Broken Cleanout	3,125	\$375	0.120	3,125	\$375
RV07 1436	RV07 6002	2320 E 16th STREET	Inflow Cleanout	Repair Broken Cleanout	3,384	\$375	0.111	6,509	\$750
RV07 1788	RV07 6101	2301 E 16th STREET	Inflow Lateral Defects	Replace Lateral	475	\$3,000	6.313	6,984	\$3,750
RV07 1788	RV07 6101	2301 E 16th STREET	Inflow Cleanout	Repair Broken Cleanout	1,296	\$375	0.289	8,280	\$4,125
RV07 1811	RV07 1829	UNK EL PASO	Inflow Lateral Defects	Replace Lateral	907	\$3,000	3.307	9,187	\$7,125
RV07 2811	RV07 2812	2415 WEST PARKWAY	Inflow Cleanout	Repair Broken Cleanout	3,874	\$375	0.097	13,061	\$7,500
RV07 2888	RV07 3001A	401 WACO	Inflow Cleanout	Repair Broken Cleanout	3,211	\$375	0.117	16,272	\$7,875
RV07 3430	RV07 3001	401 WACO	Inflow Cleanout	Repair Broken Cleanout	3,211	\$375	0.117	19,483	\$8,250
RV07 3430	RV07 3001	401 WACO	Inflow Cleanout	Repair Broken Cleanout	2,362	\$375	0.159	21,845	\$8,625
RV07 3430	RV07 3001	401 WACO	Inflow Cleanout	Repair Broken Cleanout	3,600	\$375	0.104	25,445	\$9,000
RV07 3430	RV07 3001	401 WACO	Inflow Cleanout	Replace Cleanout Cap	1,138	\$100	0.088	26,582	\$9,100
RV07 6010	RV07 6009	1118 E 9TH ST	Inflow Cleanout	Repair Broken Cleanout	2,909	\$375	0.129	29,491	\$9,475
RV07 6019	RV07 6018	1219 E 10 ST	Inflow Cleanout	Repair Broken Cleanout	1,296	\$375	0.289	30,787	\$9,850
RV07 6020	RV07 6019	1211 E 10th ST	Inflow Cleanout	Repair Broken Cleanout	2,102	\$375	0.178	32,890	\$10,225
RV07 6020	RV07 6019	1207 E 10th ST	Inflow Cleanout	Replace Cleanout Cap	3,557	\$100	0.028	36,446	\$10,325
RV07 6021	RV07 6020	1121 E 10th ST	Inflow Cleanout	Repair Broken Cleanout	3,010	\$375	0.125	39,456	\$10,700
RV07 6021	RV07 6020	1129 E 10th ST	Inflow Cleanout	Repair Broken Cleanout	3,010	\$375	0.125	42,466	\$11,075
RV07 6022	RV07 6021	1118 E 9th St	Inflow Cleanout	Repair Broken Cleanout	2,146	\$375	0.175	44,611	\$11,450
RV07 6022	RV07 6021	1118 E 9th St	Inflow Cleanout	Repair Broken Cleanout	2,318	\$375	0.162	46,930	\$11,825
RV07 6022	RV07 6021	67 E 10th ST	Inflow Lateral Defects	Replace Lateral	1,728	\$3,000	1.736	48,658	\$14,825
RV07 6024	RV07 6022	1101 E 10th ST	Inflow Cleanout	Repair Broken Cleanout	2,160	\$375	0.174	50,818	\$15,200
RV07 6024	RV07 6022	1109 E 10th ST	Inflow Cleanout	Repair Broken Cleanout	2,880	\$375	0.130	53,698	\$15,575
RV07 6030	RV07 6029	1225 S OSWEGO	Inflow Cleanout	Repair Broken Cleanout	3,557	\$375	0.105	57,254	\$15,950
RV07 6030	RV07 6029	1229 S OSWEGO	Inflow Cleanout	Repair Broken Cleanout	3,557	\$375	0.105	60,811	\$16,325
RV07 6031	RV07 6030	1134 E 10th ST	Inflow Cleanout	Repair Broken Cleanout	1,426	\$375	0.263	62,237	\$16,700
RV07 6031	RV07 6030	1205 E 12th ST	Inflow Cleanout	Repair Broken Cleanout	2,880	\$375	0.130	65,117	\$17,075
RV07 6032	RV07 6031A	1134 E 10th ST	Inflow Cleanout	Repair Broken Cleanout	1,670	\$375	0.224	66,787	\$17,450
RV07 6032	RV07 6031A	48 E 10th ST	Inflow Cleanout	Repair Broken Cleanout	2,419	\$375	0.155	69,206	\$17,825
RV07 6032	RV07 6031A	19 E 12th ST	Inflow Cleanout	Repair Broken Cleanout	2,419	\$375	0.155	71,626	\$18,200

Basin/Structure	Street Address	Type Source	Rehabilitation Work	Repair			Cumulative	Cumulative	
				Flow (GPD)	Cost (\$)	Ratio (\$/GPD)	Flow (GPD)	Cost (\$)	
RV07 6032	RV07 6031A	1124 E 10th ST	Inflow Cleanout	Replace Cleanout Cap	3,168	\$100	0.032	74,794	\$18,300
RV07 6034	RV07 6033	1110 E 12th ST	Inflow Cleanout	Replace Cleanout Cap	2,362	\$100	0.042	77,155	\$18,400
RV07 6036	RV07 6035	1001 E 12th ST	Inflow Lateral Defects	Replace Lateral	2,880	\$3,000	1.042	80,035	\$21,400
RV07 6088	RV07 6085	1328 SIDNEY	Inflow Cleanout	Repair Broken Cleanout	3,010	\$375	0.125	83,045	\$21,775
RV07 6088	RV07 6085	1325 SIDNEY	Inflow Cleanout	Repair Broken Cleanout	2,794	\$375	0.134	85,838	\$22,150
RV07 6090	RV07 6088	1313 SIDNEY	Inflow Cleanout	Repair Broken Cleanout	1,426	\$375	0.263	87,264	\$22,525
RV07 6093	RV07 6089	1313 S TAMPA AVE	Inflow Lateral Defects	Replace Lateral	1,426	\$3,000	2.104	88,690	\$25,525
RV07 6093	RV07 6089	1313 S TAMPA AVE	Inflow Lateral Defects	Replace Lateral	1,426	\$3,000	2.104	90,115	\$28,525
RV07 6094	RV07 6464	1558 E 16th STREET	Inflow Cleanout	Repair Broken Cleanout	2,045	\$375	0.183	92,160	\$28,900
RV07 6095	RV07 6091	1808 E 12th STREET	Inflow Cleanout	Repair Broken Cleanout	1,426	\$375	0.263	93,586	\$29,275
RV07 6095	RV07 6091	1812 E 12th STREET	Inflow Lateral Defects	Replace Lateral	1,080	\$3,000	2.778	94,666	\$32,275
RV07 6098	RV07 6083	1332 TAMPA AVENUE	Inflow Cleanout	Repair Broken Cleanout	1,296	\$375	0.289	95,962	\$32,650
RV07 6098	RV07 6083	1341 TAMPA AVENUE	Inflow Cleanout	Repair Broken Cleanout	1,440	\$375	0.260	97,402	\$33,025
RV07 6101	RV07 6100	2117 E 16th STREET	Inflow Cleanout	Repair Broken Cleanout	2,880	\$375	0.130	100,282	\$33,400
RV07 6101	RV07 6100	2116 E 15TH	Inflow Cleanout	Repair Broken Cleanout	2,794	\$375	0.134	103,075	\$33,775
RV07 6101	RV07 6100	2107 E 16th STREET	Inflow Cleanout	Repair Broken Cleanout	2,794	\$375	0.134	105,869	\$34,150
RV07 6103	RV07 6102	2103 15th	Inflow Cleanout	Repair Broken Cleanout	2,203	\$375	0.170	108,072	\$34,525
RV07 6110	RV07 6109	2107 E 13th STREET	Inflow Cleanout	Repair Broken Cleanout	1,426	\$375	0.263	109,498	\$34,900
RV07 6112	RV07 6111	2109 E 12th STREET	Inflow Lateral Defects	Replace Lateral	2,880	\$3,000	1.042	112,378	\$37,900
RV07 6148	RV07 6149	1809 VERONA	Inflow Cleanout	Repair Broken Cleanout	2,419	\$375	0.155	114,797	\$38,275
RV07 6149	RV07 6150	1821 VERONA	Inflow Lateral Defects	Replace Lateral	2,520	\$3,000	1.190	117,317	\$41,275
RV07 6357	RV07 6356	1524 E 15TH ST	Inflow Lateral Defects	Replace Lateral	1,426	\$3,000	2.104	118,742	\$44,275
RV07 6389	RV07 6390	1310 S. ELMIRA	Inflow Cleanout	Repair Broken Cleanout	2,160	\$375	0.174	120,902	\$44,650
RV07 6391	RV07 6392	2704 E 16th STREET	Inflow Area Drain	Remove to Storm Sewer - Ar	14,400	\$3,400	0.236	135,302	\$48,050
RV07 6427	RV07 6016	804 S LOUISVILLE	Inflow Cleanout	Repair Broken Cleanout	4,320	\$375	0.087	139,622	\$48,425
RV07 6432	RV07 6110	2112 E 12th STREET	Inflow Cleanout	Repair Broken Cleanout	864	\$375	0.434	140,486	\$48,800
RV07 6435	RV07 6436	2301 E 16th STREET	Inflow Cleanout	Repair Broken Cleanout	1,440	\$375	0.260	141,926	\$49,175
RV07 6435	RV07 6436	2301 E 16th STREET	Inflow Lateral Defects	Replace Lateral	706	\$3,000	4.252	142,632	\$52,175
RV07 6465	RV07 6340	1588 E 16th STREET	Inflow Cleanout	Repair Broken Cleanout	2,794	\$375	0.134	145,426	\$52,550
RV07 6465	RV07 6340	1588 E 16th STREET	Inflow Cleanout	Repair Broken Cleanout	1,670	\$375	0.224	147,096	\$52,925
RV07 6470	RV07 6474	1500 E 16th STREET APT E	Inflow Cleanout	Repair Broken Cleanout	864	\$375	0.434	147,960	\$53,300

Basin/Structure	Street Address	Type Source	Rehabilitation Work	Repair			Cumulative	Cumulative	
				Flow (GPD)	Cost (\$)	Ratio (\$/GPD)	Flow (GPD)	Cost (\$)	
RV07 6471	RV07 6474	1500 E 16th STREET	Inflow Cleanout	Repair Broken Cleanout	2,362	\$375	0.159	150,322	\$53,675
RV07 6474	RV07 6441	1500 E 16th STREET	Inflow Lateral Defects	Replace Lateral	475	\$3,000	6.313	150,797	\$56,675
RV07 6482	RV07 6483	UNK OSWEGO	Inflow Cleanout	Repair Broken Cleanout	1,584	\$375	0.237	152,381	\$57,050
RV07 6489	RV07 6488	LOT 33 S PITTSBURG AVE	Inflow Lateral Defects	Replace Lateral	1,656	\$3,000	1.812	154,037	\$60,050
RV14 1005	RV14 1052	1017 W B STREET	Inflow Cleanout	Repair Broken Cleanout	1,080	\$375	0.347	155,117	\$60,425
RV14 1015	RV14 1014	UNK W E STREET	Inflow Lateral Defects	Replace Lateral	864	\$3,000	3.472	155,981	\$63,425
RV14 1015	RV14 1014	809 W E STREET	Inflow Lateral Defects	Replace Lateral	1,469	\$3,000	2.042	157,450	\$66,425
RV14 1015	RV14 1014	809 W E STREET	Inflow Lateral Defects	Replace Lateral	864	\$3,000	3.472	158,314	\$69,425
RV14 1015	RV14 1014	808 W E STREET	Inflow Cleanout	Repair Broken Cleanout	2,160	\$375	0.174	160,474	\$69,800
RV14 1024	RV14 1030	1112 W B STREET	Inflow Cleanout	Repair Broken Cleanout	1,426	\$375	0.263	161,899	\$70,175
RV14 1024	RV14 1030	1112 W B STREET	Inflow Cleanout	Repair Broken Cleanout	1,426	\$375	0.263	163,325	\$70,550
RV14 1026	RV14 1025	903 W C STREET	Inflow Lateral Defects	Replace Lateral	706	\$3,000	4.252	164,030	\$73,550
RV14 1032	RV14 1030	1208 W C STREET	Inflow Cleanout	Repair Broken Cleanout	2,794	\$375	0.134	166,824	\$73,925
RV14 1032	RV14 1030	1208 W C ST	Inflow Lateral Defects	Replace Lateral	1,080	\$3,000	2.778	167,904	\$76,925
RV14 1034	RV14 1032	1321 W C STREET	Inflow Lateral Defects	Replace Lateral	720	\$3,000	4.167	168,624	\$79,925
RV14 1034	RV14 1032	200 S NEW ORLEANS	Inflow Lateral Defects	Replace Lateral	1,426	\$3,000	2.104	170,050	\$82,925
RV14 1034	RV14 1032	200 S NEW ORLEANS	Inflow Lateral Defects	Replace Lateral	1,426	\$3,000	2.104	171,475	\$85,925
RV14 1034	RV14 1032	200 S NEW ORLEANS	Inflow Lateral Defects	Replace Lateral	1,426	\$3,000	2.104	172,901	\$88,925
RV14 1034	RV14 1032	1321 W C STREET	Inflow Lateral Defects	Replace Lateral	720	\$3,000	4.167	173,621	\$91,925
RV14 1035	RV14 1034	1413 W C ST	Inflow Cleanout	Repair Broken Cleanout	2,794	\$375	0.134	176,414	\$92,300
RV14 1035	RV14 1034	1413 W C ST	Inflow Lateral Defects	Replace Lateral	3,600	\$3,000	0.833	180,014	\$95,300
RV14 1043	RV14 1042	400 VANCOUVER	Inflow Lateral Defects	Replace Lateral	1,512	\$3,000	1.984	181,526	\$98,300
RV14 1043	RV14 1042	400 VANCOUVER	Inflow Cleanout	Repair Broken Cleanout	475	\$375	0.789	182,002	\$98,675
RV14 1043	RV14 1042	400 VANCOUVER	Inflow Cleanout	Repair Broken Cleanout	864	\$375	0.434	182,866	\$99,050
RV14 1043	RV14 1042	400 VANCOUVER	Inflow Lateral Defects	Replace Lateral	1,512	\$3,000	1.984	184,378	\$102,050
RV14 1043	RV14 1042	400 VANCOUVER	Inflow Cleanout	Repair Broken Cleanout	1,397	\$375	0.268	185,774	\$102,425
RV14 1043	RV14 1042	400 VANCOUVER	Inflow Cleanout	Repair Broken Cleanout	864	\$375	0.434	186,638	\$102,800
RV14 1044	RV14 1036	302 W C ST	Inflow Lateral Defects	Replace Lateral	648	\$3,000	4.630	187,286	\$105,800
RV14 1044	RV14 1036	1660 W C PLACE	Inflow Cleanout	Repair Broken Cleanout	1,930	\$375	0.194	189,216	\$106,175
RV14 1047	RV14 1046	1904 W C PLACE	Inflow Cleanout	Repair Broken Cleanout	475	\$375	0.789	189,691	\$106,550
RV14 1047	RV14 1046	1904 W C PLACE	Inflow Cleanout	Replace Cleanout Cap	3,874	\$100	0.026	193,565	\$106,650

Basin/Structure	Street Address	Type Source	Rehabilitation Work	Repair			Cumulative	Cumulative	
				Flow (GPD)	Cost (\$)	Ratio (\$/GPD)	Flow (GPD)	Cost (\$)	
RV14 1050	RV14 2880	900 W B ST	Inflow Lateral Defects	Replace Lateral	1,080	\$3,000	2.778	194,645	\$109,650
RV14 1050	RV14 2880	903 W B ST	Inflow Lateral Defects	Replace Lateral	432	\$3,000	6.944	195,077	\$112,650
RV14 1050	RV14 2880	903 W B ST	Inflow Lateral Defects	Replace Lateral	432	\$3,000	6.944	195,509	\$115,650
RV14 1051	RV14 1005	1014 W B ST	Inflow Lateral Defects	Replace Lateral	1,080	\$3,000	2.778	196,589	\$118,650
RV14 1051	RV14 1005	1001 W B ST	Inflow Lateral Defects	Replace Lateral	706	\$3,000	4.252	197,294	\$121,650
RV14 1052	RV14 1024	1106 W B STREET	Inflow Cleanout	Repair Broken Cleanout	2,794	\$375	0.134	200,088	\$122,025
RV14 1052	RV14 1024	1106 W B STREET	Inflow Cleanout	Repair Broken Cleanout	1,426	\$375	0.263	201,514	\$122,400
RV14 1058	RV14 1032	1220 W B STREET	Inflow Cleanout	Repair Broken Cleanout	2,160	\$375	0.174	203,674	\$122,775
RV14 1059	RV14 1058	1220 W B STREET	Inflow Lateral Defects	Replace Lateral	1,080	\$3,000	2.778	204,754	\$125,775
RV14 1059	RV14 1058	1202 W B STREET	Inflow Lateral Defects	Replace Lateral	1,296	\$3,000	2.315	206,050	\$128,775
RV14 1060	RV14 1059	1310 MAIN STREET	Inflow Lateral Defects	Replace Lateral	1,296	\$3,000	2.315	207,346	\$131,775
RV14 1061	RV14 1060	1400 W B ST	Inflow Lateral Defects	Replace Lateral	1,080	\$3,000	2.778	208,426	\$134,775
RV14 1061	RV14 1060	1400 W B ST	Inflow Lateral Defects	Replace Lateral	1,728	\$3,000	1.736	210,154	\$137,775
RV14 1062	RV14 1061	1512 W B ST	Inflow Lateral Defects	Replace Lateral	2,146	\$3,000	1.398	212,299	\$140,775
RV14 1070	RV14 1054	1022 W MAIN STREET	Inflow Cleanout	Repair Broken Cleanout	475	\$375	0.789	212,774	\$141,150
RV14 1074	RV14 1073	1407 W MAIN STREET	Inflow Cleanout	Repair Broken Cleanout	1,296	\$375	0.289	214,070	\$141,525
RV14 1075	RV14 1074	1609 W MAIN STREET	Inflow Cleanout	Repair Broken Cleanout	965	\$375	0.389	215,035	\$141,900
RV14 1075	RV14 1074	1713 W MAIN STREET	Inflow Lateral Defects	Replace Lateral	1,296	\$3,000	2.315	216,331	\$144,900
RV14 1075	RV14 1074	1713 MAIN STREET	Inflow Lateral Defects	Replace Lateral	1,080	\$3,000	2.778	217,411	\$147,900
RV14 1075	RV14 1074	1713 W MAIN STREET	Inflow Lateral Defects	Replace Lateral	1,296	\$3,000	2.315	218,707	\$150,900
RV14 1075	RV14 1074	1713 W MAIN STREET	Inflow Lateral Defects	Replace Lateral	1,296	\$3,000	2.315	220,003	\$153,900
RV14 1075	RV14 1074	1713 W MAIN STREET	Inflow Lateral Defects	Replace Lateral	1,296	\$3,000	2.315	221,299	\$156,900
RV14 1075	RV14 1074	1713 W MAIN STREET	Inflow Lateral Defects	Replace Lateral	1,296	\$3,000	2.315	222,595	\$159,900
RV14 1075	RV14 1074	1713 W MAIN STREET	Inflow Cleanout	Repair Broken Cleanout	1,296	\$375	0.289	223,891	\$160,275
RV14 1075	RV14 1074	1611 W MAIN STREET	Inflow Cleanout	Repair Broken Cleanout	1,728	\$375	0.217	225,619	\$160,650
RV14 1075	RV14 1074	1611 W MAIN STREET	Inflow Lateral Defects	Replace Lateral	1,930	\$3,000	1.555	227,549	\$163,650
RV14 1075	RV14 1074	1611 W MAIN STREET	Inflow Lateral Defects	Replace Lateral	1,930	\$3,000	1.555	229,478	\$166,650
RV14 1075	RV14 1074	1713 W MAIN STREET	Inflow Lateral Defects	Replace Lateral	1,080	\$3,000	2.778	230,558	\$169,650
RV14 1078	RV14 1079	UNK W 2ND ST	Inflow Lateral Defects	Replace Lateral	1,296	\$3,000	2.315	231,854	\$172,650
RV14 1078	RV14 1079	UNK W 2ND STREET	Inflow Lateral Defects	Replace Lateral	1,296	\$3,000	2.315	233,150	\$175,650
RV14 1079	RV14 1080	815 W 2ND STREET	Inflow Cleanout	Repair Broken Cleanout	950	\$375	0.395	234,101	\$176,025

Basin/Structure	Street Address	Type Source	Rehabilitation Work	Repair			Cumulative	Cumulative	
				Flow (GPD)	Cost (\$)	Ratio (\$/GPD)	Flow (GPD)	Cost (\$)	
RV14 1079	RV14 1080	802 W 2ND STREET	Inflow Lateral Defects	Replace Lateral	7,747	\$3,000	0.387	241,848	\$179,025
RV14 1080	RV14 1083	UNK W 2ND STREET	Inflow Lateral Defects	Replace Lateral	720	\$3,000	4.167	242,568	\$182,025
RV14 1080	RV14 1083	816 W 2ND STREET	Inflow Lateral Defects	Replace Lateral	864	\$3,000	3.472	243,432	\$185,025
RV14 1080	RV14 1083	819 W 2ND STREET	Inflow Cleanout	Repair Broken Cleanout	2,794	\$375	0.134	246,226	\$185,400
RV14 1081	RV14 1069	910 S JONESBORO AVE	Inflow Lateral Defects	Replace Lateral	720	\$3,000	4.167	246,946	\$188,400
RV14 1081	RV14 1069	910 S JONESBORO AVE	Inflow Lateral Defects	Replace Lateral	720	\$3,000	4.167	247,666	\$191,400
RV14 1084	RV14 2822	1200 W MAIN STREET	Inflow Cleanout	Repair Broken Cleanout	2,376	\$375	0.158	250,042	\$191,775
RV14 1087	RV14 1072	1216 2ND STREET	Inflow Cleanout	Repair Broken Cleanout	864	\$375	0.434	250,906	\$192,150
RV14 1087	RV14 1072	1201 W MAIN STREET	Inflow Cleanout	Repair Broken Cleanout	4,838	\$375	0.078	255,744	\$192,525
RV14 1091	RV14 1087	UNK OMAHA	Inflow Cleanout	Repair Broken Cleanout	1,080	\$375	0.347	256,824	\$192,900
RV14 1093	RV14 2011	1112 S OMAHA AVE	Inflow Lateral Defects	Replace Lateral	2,146	\$3,000	1.398	258,970	\$195,900
RV14 1110	RV14 1109	1703 W 2ND PL	Inflow Lateral Defects	Replace Lateral	864	\$3,000	3.472	259,834	\$198,900
RV14 1110	RV14 1109	1703 W 2ND PL	Inflow Lateral Defects	Replace Lateral	1,930	\$3,000	1.555	261,763	\$201,900
RV14 1110	RV14 1109	1703 W 2ND PL	Inflow Lateral Defects	Replace Lateral	4,838	\$3,000	0.620	266,602	\$204,900
RV14 1110	RV14 1109	1703 W 2ND PL	Inflow Lateral Defects	Replace Lateral	2,909	\$3,000	1.031	269,510	\$207,900
RV14 1110	RV14 1109	1703 W 2ND PL	Inflow Lateral Defects	Replace Lateral	1,930	\$3,000	1.555	271,440	\$210,900
RV14 1111	RV14 1110	200 W 2ND PL	Inflow Cleanout	Repair Broken Cleanout	1,426	\$375	0.263	272,866	\$211,275
RV14 1111	RV14 1110	200 W 2ND PL	Inflow Lateral Defects	Replace Lateral	475	\$3,000	6.313	273,341	\$214,275
RV14 1118	RV14 2063	126 LAREDO	Inflow Cleanout	Repair Broken Cleanout	2,419	\$375	0.155	275,760	\$214,650
RV14 1120	RV14 1119	200 S MUSKOGEE	Inflow Lateral Defects	Replace Lateral	1,570	\$3,000	1.911	277,330	\$217,650
RV14 1121	RV14 1118	1122 BRADLEY	Inflow Cleanout	Repair Broken Cleanout	1,771	\$375	0.212	279,101	\$218,025
RV14 1121	RV14 1118	1122 BRADLEY	Inflow Cleanout	Repair Broken Cleanout	2,016	\$375	0.186	281,117	\$218,400
RV14 1124	RV14 1108	213 S PHOENIX AVE	Inflow Cleanout	Replace Cleanout Cap	648	\$100	0.154	281,765	\$218,500
RV14 1124	RV14 1108	211 S PHOENIX AVE	Inflow Cleanout	Repair Broken Cleanout	2,794	\$375	0.134	284,558	\$218,875
RV14 1125	RV14 1109	212 S QUANA AVE	Inflow Cleanout	Repair Broken Cleanout	5,803	\$375	0.065	290,362	\$219,250
RV14 1145	RV14 1083	832 WEST 3RD STREET	Inflow Lateral Defects	Replace Lateral	706	\$3,000	4.252	291,067	\$222,250
RV14 1145	RV14 1083	224 INDEPENDENCE	Inflow Lateral Defects	Replace Lateral	1,512	\$3,000	1.984	292,579	\$225,250
RV14 1146	RV14 1080	819 W 2ND STREET	Inflow Lateral Defects	Replace Lateral	1,728	\$3,000	1.736	294,307	\$228,250
RV14 1146A	RV14 1146	806 W 3RD STREET	Inflow Cleanout	Repair Broken Cleanout	3,341	\$375	0.112	297,648	\$228,625
RV14 1147	RV14 1078	200 S DENVER	Inflow Lateral Defects	Replace Lateral	1,080	\$3,000	2.778	298,728	\$231,625
RV14 1147	RV14 1078	UNK S GLENWOOD AVE	Inflow Cleanout	Repair Broken Cleanout	1,080	\$375	0.347	299,808	\$232,000

Basin/Structure	Street Address	Type Source	Rehabilitation Work	Repair			Cumulative	Cumulative	
				Flow (GPD)	Cost (\$)	Ratio (\$/GPD)	Flow (GPD)	Cost (\$)	
RV14 1147	RV14 1078	200 S DENVER	Inflow Lateral Defects	Replace Lateral	1,296	\$3,000	2.315	301,104	\$235,000
RV14 1148	RV14 1147	311 S GLENWOOD AVENUE	Inflow Cleanout	Repair Broken Cleanout	1,829	\$375	0.205	302,933	\$235,375
RV14 1148	RV14 1147	302 S GLENWOOD AVENUE	Inflow Cleanout	Repair Broken Cleanout	1,829	\$375	0.205	304,762	\$235,750
RV14 1148	RV14 1147	302 S GLENWOOD AVENUE	Inflow Lateral Defects	Replace Lateral	1,080	\$3,000	2.778	305,842	\$238,750
RV14 1148	RV14 1147	302 S GLENWOOD AVENUE	Inflow Lateral Defects	Replace Lateral	720	\$3,000	4.167	306,562	\$241,750
RV14 1148	RV14 1147	311 S GLENWOOD AVENUE	Inflow Lateral Defects	Replace Lateral	1,296	\$3,000	2.315	307,858	\$244,750
RV14 1148	RV14 1147	300 S GLENWOOD AVENUE	Inflow Lateral Defects	Replace Lateral	1,296	\$3,000	2.315	309,154	\$247,750
RV14 1149	RV14 1146	302 S HOUSTON	Inflow Lateral Defects	Replace Lateral	475	\$3,000	6.313	309,629	\$250,750
RV14 1150	RV14 2828	835 WEST 3RD STREET	Inflow Cleanout	Repair Broken Cleanout	1,426	\$375	0.263	311,054	\$251,125
RV14 1150	RV14 2828	315 INDEPENDENCE	Inflow Lateral Defects	Replace Lateral	1,512	\$3,000	1.984	312,566	\$254,125
RV14 1153	RV14 1148	318 S GLENWOOD AVENUE	Inflow Lateral Defects	Replace Lateral	648	\$3,000	4.630	313,214	\$257,125
RV14 1153	RV14 1148	318 S GLENWOOD AVENUE	Inflow Lateral Defects	Replace Lateral	2,794	\$3,000	1.074	316,008	\$260,125
RV14 1153	RV14 1148	318 S GLENWOOD AVE	Inflow Lateral Defects	Replace Lateral	720	\$3,000	4.167	316,728	\$263,125
RV14 1153	RV14 1148	329 S GLENWOOD AVENUE	Inflow Cleanout	Repair Broken Cleanout	1,728	\$375	0.217	318,456	\$263,500
RV14 1154	RV14 1161	408 S GLENWOOD AVE	Inflow Lateral Defects	Replace Lateral	1,296	\$3,000	2.315	319,752	\$266,500
RV14 1154	RV14 1161	410 S GLENWOOD AVE	Inflow Lateral Defects	Replace Lateral	1,296	\$3,000	2.315	321,048	\$269,500
RV14 1154	RV14 1161	410 S GLENWOOD AVE	Inflow Lateral Defects	Replace Lateral	864	\$3,000	3.472	321,912	\$272,500
RV14 1154	RV14 1161	410 S GLENWOOD AVENUE	Inflow Lateral Defects	Replace Lateral	864	\$3,000	3.472	322,776	\$275,500
RV14 1161	RV14 1218	429 GLENWOOD	Inflow Cleanout	Replace Cleanout Cap	1,296	\$100	0.077	324,072	\$275,600
RV14 1161	RV14 1218	432 W 5th STREET	Inflow Cleanout	Repair Broken Cleanout	3,125	\$375	0.120	327,197	\$275,975
RV14 1161	RV14 1218	432 W 5th STREET	Inflow Cleanout	Repair Broken Cleanout	3,557	\$375	0.105	330,754	\$276,350
RV14 1162	RV14 1162B	819 W 4TH STREET	Inflow Lateral Defects	Replace Lateral	230	\$3,000	13.021	330,984	\$279,350
RV14 1162B	RV14 1158	819 W 4TH STREET	Inflow Lateral Defects	Replace Lateral	475	\$3,000	6.313	331,459	\$282,350
RV14 1213A	RV14 1162	814 W 4TH STREET	Inflow Lateral Defects	Replace Lateral	1,080	\$3,000	2.778	332,539	\$285,350
RV14 1220	RV14 2830	614 W 6TH STREET, APT G	Inflow Cleanout	Replace Cleanout Cap	1,930	\$100	0.052	334,469	\$285,450
RV14 1220	RV14 2830	614 W 6TH STREET	Inflow Lateral Defects	Replace Lateral	2,794	\$3,000	1.074	337,262	\$288,450
RV14 1220	RV14 2830	614 W 6TH STREET	Inflow Cleanout	Repair Broken Cleanout	4,421	\$375	0.085	341,683	\$288,825
RV14 1227	RV14 1220	513 W 6TH STREET	Inflow Lateral Defects	Replace Lateral	1,426	\$3,000	2.104	343,109	\$291,825
RV14 1301	RV14 1126	UNK S RENO AVE	Inflow Lateral Defects	Replace Lateral	4,306	\$3,000	0.697	347,414	\$294,825
RV14 1302	RV14 1301	1807 W BRADLEY LN	Inflow Cleanout	Repair Broken Cleanout	864	\$375	0.434	348,278	\$295,200
RV14 1304	RV14 1299	221 S PHOENIX AVE	Inflow Cleanout	Repair Broken Cleanout	1,930	\$375	0.194	350,208	\$295,575

Basin/Structure	Street Address	Type Source	Rehabilitation Work	Repair			Cumulative	Cumulative	
				Flow (GPD)	Cost (\$)	Ratio (\$/GPD)	Flow (GPD)	Cost (\$)	
RV14 1308	RV14 1307	309 S PHOENIX AVE	Inflow Cleanout	Repair Broken Cleanout	2,376	\$375	0.158	352,584	\$295,950
RV14 1308A	RV14 1308	1810 W 3RD ST	Inflow Cleanout	Repair Broken Cleanout	2,909	\$375	0.129	355,493	\$296,325
RV14 1313	RV14 1312	1905 W 3RD ST	Inflow Lateral Defects	Replace Lateral	648	\$3,000	4.630	356,141	\$299,325
RV14 1323	RV14 1107	2201 W 2ND PL	Inflow Cleanout	Repair Broken Cleanout	5,170	\$375	0.073	361,310	\$299,700
RV14 1324	RV14 1325	236 S ARLINGTON AVE	Inflow Cleanout	Repair Broken Cleanout	475	\$375	0.789	361,786	\$300,075
RV14 1328	RV14 1327	2507 BRADLEY LN	Inflow Cleanout	Repair Broken Cleanout	10	\$375	37.202	361,796	\$300,450
RV14 1330	RV14 1328	2708 BRADLEY LN	Inflow Cleanout	Repair Broken Cleanout	2,794	\$375	0.134	364,589	\$300,825
RV14 1516	RV14 1220	UNK W 6TH ST	Inflow Lateral Defects	Replace Lateral	864	\$3,000	3.472	365,453	\$303,825
RV14 1516	RV14 1220	506 W 6TH ST	Inflow Lateral Defects	Replace Lateral	2,909	\$3,000	1.031	368,362	\$306,825
RV14 1516	RV14 1220	503 W 6TH ST	Inflow Lateral Defects	Replace Lateral	648	\$3,000	4.630	369,010	\$309,825
RV14 1516	RV14 1220	503 W 6TH ST	Inflow Lateral Defects	Replace Lateral	864	\$3,000	3.472	369,874	\$312,825
RV14 1516	RV14 1220	501 W 6TH STREET	Inflow Lateral Defects	Replace Lateral	1,296	\$3,000	2.315	371,170	\$315,825
RV14 1516	RV14 1220	UNK W 6TH STREET	Inflow Lateral Defects	Replace Lateral	1,296	\$3,000	2.315	372,466	\$318,825
RV14 1516	RV14 1220	413 W 6TH ST	Inflow Lateral Defects	Replace Lateral	1,296	\$3,000	2.315	373,762	\$321,825
RV14 1516	RV14 1220	501 W 6TH STREET	Inflow Lateral Defects	Replace Lateral	1,296	\$3,000	2.315	375,058	\$324,825
RV14 1517	RV14 1529	707 SOUTH DENVER	Inflow Lateral Defects	Replace Lateral	230	\$3,000	13.021	375,288	\$327,825
RV14 1529	RV14 2833	410 WEST 8TH	Inflow Cleanout	Repair Broken Cleanout	864	\$375	0.434	376,152	\$328,200
RV14 1529	RV14 2833	410 WEST 8TH	Inflow Cleanout	Repair Broken Cleanout	706	\$375	0.531	376,858	\$328,575
RV14 1530	RV14 1529	219 WEST 8TH	Inflow Lateral Defects	Replace Lateral	864	\$3,000	3.472	377,722	\$331,575
RV14 1531	RV14 1530	213 WEST 8TH	Inflow Lateral Defects	Replace Lateral	230	\$3,000	13.021	377,952	\$334,575
RV14 1531	RV14 1530	713 SOUTH COMMERCE	Inflow Lateral Defects	Replace Lateral	1,426	\$3,000	2.104	379,378	\$337,575
RV14 1531	RV14 1530	204 W 8TH ST	Inflow Lateral Defects	Replace Lateral	1,080	\$3,000	2.778	380,458	\$340,575
RV14 1532	RV14 1531	201 WEST 8TH	Inflow Lateral Defects	Replace Lateral	1,080	\$3,000	2.778	381,538	\$343,575
RV14 1532	RV14 1531	201 WEST 8TH	Inflow Lateral Defects	Replace Lateral	2,794	\$3,000	1.074	384,332	\$346,575
RV14 1532	RV14 1531	201 W 8TH ST	Inflow Lateral Defects	Replace Lateral	864	\$3,000	3.472	385,196	\$349,575
RV14 1533	RV14 1532	115 WEST 8TH	Inflow Cleanout	Repair Broken Cleanout	1,584	\$375	0.237	386,780	\$349,950
RV14 1533	RV14 1532	115 WEST 8TH	Inflow Lateral Defects	Replace Lateral	1,584	\$3,000	1.894	388,364	\$352,950
RV14 1831	RV14 1069	915 W MAIN STREET	Inflow Lateral Defects	Replace Lateral	4,838	\$3,000	0.620	393,202	\$355,950
RV14 1831	RV14 1069	915 W MAIN STREET	Inflow Cleanout	Repair Broken Cleanout	1,426	\$375	0.263	394,628	\$356,325
RV14 1831	RV14 1069	915 W MAIN STREET	Inflow Cleanout	Repair Broken Cleanout	3,874	\$375	0.097	398,501	\$356,700
RV14 1831	RV14 1069	915 W MAIN STREET	Inflow Lateral Defects	Replace Lateral	216	\$3,000	13.889	398,717	\$359,700

Basin/Structure	Street Address	Type Source	Rehabilitation Work	Repair			Cumulative	Cumulative	
				Flow (GPD)	Cost (\$)	Ratio (\$/GPD)	Flow (GPD)	Cost (\$)	
RV14 1832	RV14 1080	814 W 2ND STREET	Inflow Lateral Defects	Replace Lateral	475	\$3,000	6.313	399,192	\$362,700
RV14 2009	RV14 2880	911 W B STREET	Inflow Cleanout	Repair Broken Cleanout	2,909	\$375	0.129	402,101	\$363,075
RV14 2009	RV14 2880	911 W B STREET	Inflow Cleanout	Repair Broken Cleanout	965	\$375	0.389	403,066	\$363,450
RV14 2176	RV14 2851	1400 W 2ND PL	Inflow Cleanout	Repair Broken Cleanout	2,578	\$375	0.145	405,644	\$363,825
RV14 2194	RV14 1831	809 W MAIN STREET	Inflow Lateral Defects	Replace Lateral	432	\$3,000	6.944	406,076	\$366,825
RV14 2824	RV14 1050	808 W B STREET	Inflow Cleanout	Repair Broken Cleanout	1,829	\$375	0.205	407,904	\$367,200
RV14 2825	RV14 1085	1009 W MAIN STREET	Inflow Cleanout	Repair Broken Cleanout	706	\$375	0.531	408,610	\$367,575
RV14 2825	RV14 1085	1089 W MAIN STREET	Inflow Cleanout	Repair Broken Cleanout	706	\$375	0.531	409,316	\$367,950
RV14 2826	RV14 1832	102 S HOUSTON AVE	Inflow Lateral Defects	Replace Lateral	3,110	\$3,000	0.965	412,426	\$370,950
RV14 2833	RV14 1228	416 WEST 7TH	Inflow Cleanout	Repair Broken Cleanout	2,794	\$375	0.134	415,220	\$371,325
RV14 2849	RV14 1123	216 W 2ND CT	Inflow Cleanout	Repair Broken Cleanout	864	\$375	0.434	416,084	\$371,700
RV14 2850	RV14 2849	1315 S OMAHA AVE	Inflow Lateral Defects	Replace Lateral	864	\$3,000	3.472	416,948	\$374,700
RV14 3396	RV14 1324	223 S ARLINGTON AVE	Inflow Cleanout	Repair Broken Cleanout	432	\$375	0.868	417,380	\$375,075
RV14 3396	RV14 1324	223 S ARLINGTON AVE	Inflow Cleanout	Repair Broken Cleanout	648	\$375	0.579	418,028	\$375,450
RV14 EOL	RV14 1532	806 SOUTH ARKANSAS	Inflow Cleanout	Repair Broken Cleanout	648	\$375	0.579	418,676	\$375,825
RV14 EOL	RV14 1014	UNK N INDEPENDANCE AVE	Inflow Lateral Defects	Replace Lateral	2,146	\$3,000	1.398	420,821	\$378,825
RV14 EOL	RV14 1120	1309 W 2ND STREET	Inflow Cleanout	Repair Broken Cleanout	1,426	\$375	0.263	422,247	\$379,200
RV14 EOL	RV14 1149	806 W 3RD PL	Inflow Cleanout	Repair Broken Cleanout	1,181	\$375	0.318	423,428	\$379,575
RV14 EOL	RV14 1149	318 S HOUSTON	Inflow Cleanout	Repair Broken Cleanout	706	\$375	0.531	424,133	\$379,950
RV14 EOL	RV14 1013	1010 W E STREET	Inflow Lateral Defects	Replace Lateral	1,296	\$3,000	2.315	425,429	\$382,950
RV14 EOL	RV14 1014	UNK N INDEPENDANCE AVE	Inflow Lateral Defects	Replace Lateral	648	\$3,000	4.630	426,077	\$385,950
RV14 EOL	RV14 1120	1300 W 2ND PL	Inflow Lateral Defects	Replace Lateral	1,080	\$3,000	2.778	427,157	\$388,950
RV14 EOL	RV14 1014	UNK N INDEPENDANCE AVE	Inflow Lateral Defects	Replace Lateral	648	\$3,000	4.630	427,805	\$391,950
RV14 EOL	RV14 1532	115 W 8TH ST	Inflow Lateral Defects	Replace Lateral	864	\$3,000	3.472	428,669	\$394,950
RV14 EOL	RV14 1532	806 SOUTH ARKANSAS	Inflow Cleanout	Repair Broken Cleanout	1,238	\$375	0.303	429,908	\$395,325
RV14 EOL	RV14 1532	115 WEST 8TH	Inflow Lateral Defects	Replace Lateral	648	\$3,000	4.630	430,556	\$398,325
RV14 EOL	RV14 1150	318 HOUSTON	Inflow Cleanout	Repair Broken Cleanout	1,829	\$375	0.205	432,384	\$398,700
RV23 1018	RV23 1774	301 N EL PASO	Inflow Lateral Defects	Replace Lateral	1,656	\$3,000	1.812	434,040	\$401,700
RV23 1020	RV23 1482	301 N EL PASO	Inflow Cleanout	Replace Cleanout Cap	3,600	\$100	0.028	437,640	\$401,800
RV23 1020	RV23 1482	301 N EL PASO	Inflow Cleanout	Repair Broken Cleanout	2,880	\$375	0.130	440,520	\$402,175
RV23 1027	RV23 1028	315 W C ST	Inflow Cleanout	Repair Broken Cleanout	360	\$375	1.042	440,880	\$402,550

Basin/Structure	Street Address	Type Source	Rehabilitation Work	Repair			Cumulative	Cumulative	
				Flow (GPD)	Cost (\$)	Ratio (\$/GPD)	Flow (GPD)	Cost (\$)	
RV23 1028	RV23 2058	702 W C STREET	Inflow Cleanout	Repair Broken Cleanout	1,930	\$375	0.194	442,810	\$402,925
RV23 1028	RV23 2058	702 W C STREET	Inflow Lateral Defects	Replace Lateral	2,419	\$3,000	1.240	445,229	\$405,925
RV23 1049	RV23 1048	615 W B ST	Inflow Lateral Defects	Replace Lateral	1,080	\$3,000	2.778	446,309	\$408,925
RV23 1473	RV23 1474	414 S EL PASO AVE	Inflow Lateral Defects	Replace Lateral	1,080	\$3,000	2.778	447,389	\$411,925
RV23 1477	RV23 1065	500 W MAIN ST	Inflow Lateral Defects	Replace Lateral	1,080	\$3,000	2.778	448,469	\$414,925
RV23 1489	RV23 1536	201 N ARKANSAS AVENUE	Inflow Lateral Defects	Replace Lateral	2,131	\$3,000	1.408	450,600	\$417,925
RV23 1492	RV23 1493	311 W MAIN ST	Inflow Cleanout	Repair Broken Cleanout	216	\$375	1.736	450,816	\$418,300
RV23 1492	RV23 1493	106 S COMMERCE AVE	Inflow Cleanout	Repair Broken Cleanout	2,376	\$375	0.158	453,192	\$418,675
RV23 1492	RV23 1493	110 S COMMERCE AVE	Inflow Lateral Defects	Replace Lateral	2,880	\$3,000	1.042	456,072	\$421,675
RV23 1492	RV23 1493	303 W MAIN ST	Inflow Lateral Defects	Replace Lateral	1,930	\$3,000	1.555	458,002	\$424,675
RV23 1492	RV23 1493	108 S COMMERCE AVE	Inflow Lateral Defects	Replace Lateral	3,384	\$3,000	0.887	461,386	\$427,675
RV23 1492	RV23 1493	311 W MAIN ST	Inflow Lateral Defects	Replace Lateral	950	\$3,000	3.157	462,336	\$430,675
RV23 1502	RV23 1497	202 S COMMERCE AVE	Inflow Cleanout	Repair Broken Cleanout	1,080	\$375	0.347	463,416	\$431,050
RV23 1505	RV23 1502	304 S COMMERCE AVE	Inflow Cleanout	Repair Broken Cleanout	1,440	\$375	0.260	464,856	\$431,425
RV23 1506	RV23 1503	313 S BOULDER AVE	Inflow Lateral Defects	Replace Lateral	1,080	\$3,000	2.778	465,936	\$434,425
RV23 1506	RV23 1503	304 S BOULDER AVE	Inflow Lateral Defects	Replace Lateral	922	\$3,000	3.255	466,858	\$437,425
RV23 1506	RV23 1503	313 S BOULDER AVE	Inflow Lateral Defects	Replace Lateral	1,296	\$3,000	2.315	468,154	\$440,425
RV23 1508	RV23 1507	210 S ARKANSAS AVENUE	Inflow Lateral Defects	Replace Lateral	720	\$3,000	4.167	468,874	\$443,425
RV23 1508	RV23 1507	210 S ARKANSAS AVENUE	Inflow Lateral Defects	Replace Lateral	720	\$3,000	4.167	469,594	\$446,425
RV23 1508	RV23 1507	210 S ARKANSAS AVE	Inflow Lateral Defects	Replace Lateral	360	\$3,000	8.333	469,954	\$449,425
RV23 1508	RV23 1507	210 S ARKANSAS AVENUE	Inflow Lateral Defects	Replace Lateral	360	\$3,000	8.333	470,314	\$452,425
RV23 1508	RV23 1507	210 S ARKANSAS AVENUE	Inflow Lateral Defects	Replace Lateral	360	\$3,000	8.333	470,674	\$455,425
RV23 1510	RV23 1505	205 W 3RD PL	Inflow Cleanout	Repair Broken Cleanout	490	\$375	0.766	471,164	\$455,800
RV23 1511	RV23 1506	125 W 3RD PL	Inflow Lateral Defects	Replace Lateral	1,296	\$3,000	2.315	472,460	\$458,800
RV23 1511	RV23 1506	125 W 3RD PL	Inflow Lateral Defects	Replace Lateral	1,296	\$3,000	2.315	473,756	\$461,800
RV23 1511	RV23 1506	125 W 3RD PL	Inflow Lateral Defects	Replace Lateral	1,080	\$3,000	2.778	474,836	\$464,800
RV23 1512	RV23 1509	406 S DENVER AVE	Inflow Lateral Defects	Replace Lateral	922	\$3,000	3.255	475,757	\$467,800
RV23 1513	RV23 1510	400 S COMMERCE AVE	Inflow Lateral Defects	Replace Lateral	1,440	\$3,000	2.083	477,197	\$470,800
RV23 1513	RV23 1510	400 S COMMERCE AVE	Inflow Lateral Defects	Replace Lateral	1,296	\$3,000	2.315	478,493	\$473,800
RV23 1513	RV23 1510	400 S COMMERCE AVE	Inflow Lateral Defects	Replace Lateral	1,930	\$3,000	1.555	480,423	\$476,800
RV23 1513	RV23 1510	400 S COMMERCE AVE	Inflow Lateral Defects	Replace Lateral	648	\$3,000	4.630	481,071	\$479,800

Basin/Structure	Street Address	Type Source	Rehabilitation Work	Repair			Cumulative	Cumulative
				Flow (GPD)	Cost (\$)	Ratio (\$/GPD)	Flow (GPD)	Cost (\$)
RV23 1513	RV23 1510 407 S COMMERCE AVE	Inflow Lateral Defects	Replace Lateral	648	\$3,000	4.630	481,719	\$482,800
RV23 1513	RV23 1510 410 S COMMERCE AVE	Inflow Lateral Defects	Replace Lateral	1,440	\$3,000	2.083	483,159	\$485,800
RV23 1513	RV23 1510 407 S COMMERCE AVE	Inflow Lateral Defects	Replace Lateral	2,160	\$3,000	1.389	485,319	\$488,800
RV23 1514	RV23 1511 408 S BOULDER AVE	Inflow Lateral Defects	Replace Lateral	1,080	\$3,000	2.778	486,399	\$491,800
RV23 1518	RV23 1513 510 W 6TH ST	Inflow Lateral Defects	Replace Lateral	648	\$3,000	4.630	487,047	\$494,800
RV23 1518	RV23 1513 504 S COMMERCE AVE	Inflow Lateral Defects	Replace Lateral	1,613	\$3,000	1.860	488,660	\$497,800
RV23 1519	RV23 1514 509 S BOULDER AVE	Inflow Cleanout	Repair Broken Cleanout	2,160	\$375	0.174	490,820	\$498,175
RV23 1520	RV23 1519 119 W 6TH ST	Inflow Lateral Defects	Replace Lateral	475	\$3,000	6.313	491,295	\$501,175
RV23 1521	RV23 1508 410 S ARKANSAS AVENUE	Inflow Cleanout	Replace Cleanout Cap	1,426	\$100	0.070	492,720	\$501,275
RV23 1521	RV23 1508 318 S ARKANSAS AVENUE	Inflow Cleanout	Repair Broken Cleanout	950	\$375	0.395	493,671	\$501,650
RV23 1521	RV23 1508 318 S ARKANSAS AVENUE	Inflow Lateral Defects	Replace Lateral	1,426	\$3,000	2.104	495,096	\$504,650
RV23 1524	RV23 1519 607 S BOULDER AVE	Inflow Lateral Defects	Replace Lateral	7,200	\$3,000	0.417	502,296	\$507,650
RV23 1524	RV23 1519 125 W 6TH ST	Inflow Cleanout	Replace Cleanout Cap	4,752	\$100	0.021	507,048	\$507,750
RV23 1524	RV23 1519 616 S BOULDER AVE	Inflow Lateral Defects	Replace Lateral	893	\$3,000	3.360	507,941	\$510,750
RV23 1528	RV23 1523 702 S COMMERCE AVE	Inflow Lateral Defects	Replace Lateral	1,440	\$3,000	2.083	509,381	\$513,750
RV23 1560	RV23 1562 201 S ARKANSAS AVENUE	Inflow Lateral Defects	Replace Lateral	1,181	\$3,000	2.541	510,562	\$516,750
RV23 1560	RV23 1562 201 S ARKANSAS AVENUE	Inflow Lateral Defects	Replace Lateral	1,440	\$3,000	2.083	512,002	\$519,750
RV23 1560	RV23 1562 201 S ARKANSAS AVENUE	Inflow Lateral Defects	Replace Lateral	1,181	\$3,000	2.541	513,183	\$522,750
RV23 1560	RV23 1562 201 S ARKANSAS AVENUE	Inflow Lateral Defects	Replace Lateral	1,181	\$3,000	2.541	514,364	\$525,750
RV23 1561	RV23 2108 204 N ARKANSAS AVENUE	Inflow Cleanout	Repair Broken Cleanout	216	\$375	1.736	514,580	\$526,125
RV23 1563	RV23 1567 212 N ARKANSAS AVE	Inflow Lateral Defects	Replace Lateral	720	\$3,000	4.167	515,300	\$529,125
RV23 2109	RV23 2110 100 W MAIN STREET	Inflow Lateral Defects	Replace Lateral	2,419	\$3,000	1.240	517,719	\$532,125
RV23 2827	RV23 1066 701 S GLENWOOD	Inflow Lateral Defects	Replace Lateral	1,296	\$3,000	2.315	519,015	\$535,125
RV23 2827	RV23 1066 701 S GLENWOOD AVENUE	Inflow Lateral Defects	Replace Lateral	1,080	\$3,000	2.778	520,095	\$538,125
RV23 2855	RV23 1049 700 W B ST	Inflow Lateral Defects	Replace Lateral	720	\$3,000	4.167	520,815	\$541,125
RV23 2858	RV23 2859 121 W B ST	Inflow Lateral Defects	Replace Lateral	216	\$3,000	13.889	521,031	\$544,125
RV23 2858	RV23 2859 121 W B STREET	Inflow Lateral Defects	Replace Lateral	3,384	\$3,000	0.887	524,415	\$547,125
RV23 2858	RV23 2859 310 DENVER	Inflow Cleanout	Repair Broken Cleanout	10	\$375	37.202	524,425	\$547,500
RV23 2859A	RV23 1489 308 W B STREET	Inflow Lateral Defects	Replace Lateral	2,419	\$3,000	1.240	526,844	\$550,500
RV23 2859A	RV23 1489 308 W B STREET	Inflow Cleanout	Repair Broken Cleanout	965	\$375	0.389	527,809	\$550,875
RV23 2859A	RV23 1489 312 W B STREET	Inflow Lateral Defects	Replace Lateral	965	\$3,000	3.109	528,774	\$553,875

Basin/Structure	Street Address	Type Source	Rehabilitation Work	Repair			Cumulative	Cumulative	
				Flow (GPD)	Cost (\$)	Ratio (\$/GPD)	Flow (GPD)	Cost (\$)	
RV23 2859A	RV23 1489	308 W B STREET	Inflow Lateral Defects	Replace Lateral	950	\$3,000	3.157	529,724	\$556,875
RV23 2859A	RV23 1489	312 W B ST	Inflow Lateral Defects	Replace Lateral	475	\$3,000	6.313	530,199	\$559,875
RV23 2859A	RV23 1489	312 W B ST	Inflow Lateral Defects	Replace Lateral	475	\$3,000	6.313	530,675	\$562,875
RV23 2859A	RV23 1489	312 W B ST	Inflow Lateral Defects	Replace Lateral	1,426	\$3,000	2.104	532,100	\$565,875
RV23 2859A	RV23 1489	308 W B STREET	Inflow Lateral Defects	Replace Lateral	965	\$3,000	3.109	533,065	\$568,875
RV23 2859B	RV23 2859A	301 W B ST	Inflow Lateral Defects	Replace Lateral	2,909	\$3,000	1.031	535,974	\$571,875
RV23 EOL	RV23 1066	708 W MAIN STREET	Inflow Lateral Defects	Replace Lateral	1,613	\$3,000	1.860	537,587	\$574,875
RV23 EOL	RV23 1520	119 W 6TH ST	Inflow Lateral Defects	Replace Lateral	1,296	\$3,000	2.315	538,883	\$577,875
RV23 EOL	RV23 1520	119 W 6TH ST	Inflow Cleanout	Repair Broken Cleanout	1,930	\$375	0.194	540,812	\$578,250
RV23 EOL	RV23 1520	119 W 6TH ST	Inflow Cleanout	Repair Broken Cleanout	1,296	\$375	0.289	542,108	\$578,625
RV23 EOL	RV23 1520	119 W 6TH ST	Inflow Lateral Defects	Replace Lateral	1,080	\$3,000	2.778	543,188	\$581,625
RV23 EOL2	RV23 2874	110 W 8TH STREET	Inflow Cleanout	Replace Cleanout Cap	1,080	\$100	0.093	544,268	\$581,725
RV23 EOL2	RV23 2874	718 S ARKANSAS AVENUE	Inflow Cleanout	Repair Broken Cleanout	950	\$375	0.395	545,219	\$582,100

Total Flow (gpd): 545,219

Total Cost: \$582,100

Total Sources: 321